

Study on patient Perspectives on the Promptness and Quality of Care of Road Traffic Accident Victims in a tertiary care hospital in South India

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ABSTRACT

Background: Road Traffic Accidents (RTAs) are an important cause of mortality worldwide. According to the World Health Organization (WHO), more than 1.25 million people die each year as a result of RTAs. India accounts for more than 2 hundred thousand of those deaths.

Aim: To identify patterns of RTAs presenting at a tertiary healthcare centre, assess the promptness and quality of healthcare given to those injured in the RTAs, and assess factors associated with perceptions of the quality of care received.

Methods: Cross sectional study of RTA victims who sustained injuries and were admitted to the inpatient department of a tertiary care hospital in Manipal between November 2016 and June 2017.

Sample size: 100. Data was gathered on demography, crash characteristics and injuries sustained.

Results: The age group with the highest preponderance of RTAs was the 40-50 year age group (41%). 8 pm to 11 pm witnessed the highest proportion of accidents (26%). A majority (74%) of the victims met with their accidents when they were travelling on two wheelers. 63% of RTA victims were satisfied with the care that they received in the emergency room.

Conclusion: Patients were positive about doctors and nurses, the care and treatment and the 'overall' care that they had received. Patients were more critical about the intimation of test results to them and the medicine administered. The mean quality of care in the emergency room appeared to be better in terms of timely care and treatment. Healthcare performance in the emergency room can be compared between hospitals by surveying patient's experiences, and there is much to learn across emergency rooms in diverse settings.

Key words: Road traffic injury, vehicular accident, head injury, quality of care

INTRODUCTION

With a growing population and an ever increasing number of motor vehicles, Road Traffic Accidents (RTAs) and Road traffic injuries (RTIs) are a matter of serious public health concern. The World Health Organization (WHO) says that more than 12.5 lakh people die each year as a result of RTAs. India accounts for more than 2 lakh of those deaths. In a matter of seconds, RTAs snuff out lives or cause injuries which might range from minor to debilitating. There are tremendous psycho-socio-economic implications on families of RTA victims. Forecasts for

RTA fatalities by 2020 predict a dramatic rise with the annual RTA mortality burden for all age groups in India expected to reach 20.9/100,000 population^{1,2}.

Historically, RTAs haven't received the policy attention that they should in India^{3,4}. Offering timely and quality emergency medical care services to RTA victims is essential, making sure they get enough attention of all ongoing services offered. Identifying the promptness and quality of accident and emergency services is vital for continuous quality improvement.

The objective of the was to assess the promptness of health care services provided to those injured in Road Traffic Accidents (RTAs) and their satisfaction with those services.

METHODOLOGY

This cross-sectional study was carried out in a tertiary care hospital from November 2016 to May 2017. All RTA patients data who are admitted during the period of study were analysed through SPSS Version 16.0. A validated Questionnaire was administered to patients who were admitted as inpatients after a road

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traffic accident. All victims of RTAs admitted in the inpatient ward during the study period were included in the study. Those patients who are below 18 years and those who refused to give their informed consent before the interview are excluded from the study. In addition, referred, unconscious and patients who were hemodynamically unstable are also excluded.

RESULTS AND DISCUSSION

On assessing for association between socio-demographic factors (such as age, gender, education, occupation and income), no significant association with perception of quality of care was observed. Hajifathali et al⁵ observed that the older patients were more satisfied with the quality of care than the younger patients. Pascoe⁶ reported that patients with higher income levels tend to be less satisfied with the quality of care. Afzal et al⁷ observed that satisfaction levels increased with age and decreased with increasing levels of literacy and income. This study had no such findings.

No significant association was observed between prompt care (care received within 30 minutes) and the perception of quality of care. Bleustein et al⁸ report a negative association of clinical provider scores of patient satisfaction with longer wait times. The results indicated that every aspect of patient experience, specifically confidence in the care provider and perceived quality of care, correlated negatively with longer wait times. In the present study, no significance was found.

No significant association was observed on any of the parameters but one. Respondents who felt that they got the information they wanted regarding the tests results had significantly better perceptions of the quality of care.

Table 1: Promptness and quality of healthcare in the emergency room following an RTA

Promptness and quality of care	Frequency
Transported by an ambulance:	
Yes	49 (49%)
No	51 (51%)
Received care within 30 minutes	
Yes	97 (97%)
No	3 (3%)
Asked about the previous medications	
Yes, definitely	84 (84%)
Yes, somewhat	13 (13%)
No	3(3%)
Information provided about medicine administered	
Yes, definitely	55 (55%)
Yes, somewhat	31 (31%)
No	14 (14%)
Medicine administered for pain	
Yes, definitely	85 (85%)
Yes, somewhat	15 (15%)
Respondent perception of pain management	
Yes, definitely	67 (67%)
Yes, somewhat	30 (30%)
No	3 (3%)
Information given regarding the tests results	
Yes, definitely	38 (38%)
Yes, somewhat	17 (17%)
No	45 (45%)
Need of an interpreter	
Yes	9 (9%)
No	91 (91%)
Availed interpreter	
Yes	4(44.44%)
No	5(55.56%)

Table 2: Perception of quality of care received by the respondent in the emergency room

Perception of care	Frequency
Poor	6 (6%)
Satisfactory	63 (63%)
Very good	31 (31%)
Total	100%

Table 3: Association of socio-demographic characteristics with perception of quality of care

Characteristics	Perceived overall quality of care			$\chi^2/p<0.05$
	Poor	Satisfactory	V-Good	
Age				
18-29	0	7(77.8%)	2(22.2%)	3.810/0.044
30-39	1(4.3%)	17(73.3%)	5(21.7%)	
40-49	4(9.8%)	24(58.5%)	13(31.7%)	
50 and above	1(3.7%)	15(55.6%)	11(40.7%)	
Gender:				
Male	4(5.1%)	48(61.5%)	26(33.3%)	1.404/0.484
Female	2(9.1%)	15(68.2%)	5(22.7%)	
Education				
Illiterate	0(0.0%)	2(50%)	2(50%)	10.394/0.174
Primary	0(0.0%)	14(60.9%)	9(39.1%)	
Secondary	2(33.3%)	4(66.7%)	0(0.0%)	
HSC	2(5.0%)	24(60%)	14(35.0%)	
Graduate and above	2(7.4%)	19(70.4%)	6(22.2%)	
Occupation				
Students	0(0.0%)	3(100%)	0(0.0%)	9.446/0.102
Unskilled	0(0.0%)	12(57.1%)	9(42.9%)	
Skilled	2(9.5%)	9(42.95)	10(47.65)	
Business	4(7.3%)	39(70.9%)	12(21.8%)	
Income				
Below INR 5000	0(0.0%)	10(83.3%)	2(16.7%)	7.896/0.198
INR 5001 to 10,000	1(2.6%)	22(56.4%)	16(41%)	
INR 10,001 to 15,000	4(12.9%)	21(67.7%)	6(19.4%)	
INR 15,001 and Above	1(5.6%)	10(55.6%)	7(38.9%)	

Table 4: Association of prompt care with perception of quality of care

Received care within 30 minutes	Perceived overall quality of care			$\chi^2/p<0.05$
	Poor	Satisfactory	V. Good	
Yes	6(6.2%)	61(62.9%)	30(30.9%)	0.599/0.392
No	0(0%)	2(66.7%)	1(33.3%)	

Table 5: Association of quality of service at the emergency room and perception of quality of care

Association of quality of service and perception of quality of care	Perceived overall quality of care			$\chi^2/p<0.05$
	Poor	Satisfied	V-good	
Asked about the previous medications:				
Yes, definitely	5(6%)	54 (64.3%)	25 (29.8%)	1.579/0.137
Yes, somewhat	1(7.7%)	7 (53.85%)	5 (38.5%)	
No	0(0.0%)	2 (66.7%)	1 (33.3%)	
Information provided about medicine administered				
Yes, definitely	3(5.5%)	33(60%)	19(34.5%)	2.962/0.064
Yes, somewhat	1(3.2%)	22(77%)	8(25.8%)	
No	2(14.3%)	8(57.1%)	4(28.6%)	
Medicine administered for pain				
Yes, definitely	6(7.1%)	52(61.2%)	27(31.8%)	0.821/0.197
Yes, somewhat	0(0.0%)	11(73.3%)	4(26.7%)	
Respondent perception of pain management :				
Yes, definitely	4(6.0%)	40(59.7%)	23(34.3%)	1.880/0.106
Yes, somewhat	2(6.7%)	21(70%)	7(23.3%)	
No	0(0%)	2(66.7%)	1(33.3%)	
Information given regarding the tests results				
Yes, definitely	3(7.9%)	18(47.4%)	17(44.7%)	13.862/0.012
Yes, somewhat	2(11.8%)	8(47.1%)	7(41.2%)	
No	1(2.2%)	37(87.2%)	7(15.6%)	
Availed interpreter:				
Yes	0(5.3%)	2(50%)	2(50%)	1.481/0.246
No	1(20%)	3(60%)	1(20%)	

Limitations of the study: The exclusion criteria becomes a limitation of the study, since the victims of the worst accidents who are either not in a state to participate in the study or not willing to participate, are excluded.

RECOMMENDATIONS

1. Wherever possible, pain alleviation measures and medications should be initiated and titrated according to the patients' needs and response.
2. The patient and/or family must be informed of the results of the diagnostic tests. These must be explained to them in a language that they understand.
3. Patients and/or family must be educated about the safe and effective use of medication and the potential side effects of the medication.
4. Workshops on communication can be conducted for the staff at regular intervals.

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