"The Knowledge, Attitude and Practice towards Ill Effects of Risk-Taking Behaviour among Young Drivers "

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ABSTRACT

Road traffic injuries constitute the leading cause of death among children and young adults aged 5-29 years worldwide. This descriptive study aimed to assess the knowledge, attitude, and practice (KAP) of young drivers regarding the adverse effects of risk-taking behaviors and to examine the association between practice levels and selected demographic variables. The study was conducted at KMCT College of Nursing and School of Nursing, Manassery, Kozhikode. A total of 100 students who drove two-wheelers were recruited over two days using a convenience sampling technique. Data were collected using a structured questionnaire, tabulated, and analyzed with appropriate statistical tests. Among the 100 participants, the majority (68%) demonstrated moderate knowledge levels, 54% exhibited low risk tolerance attitudes, and 96% reported good driving practices. Findings revealed a significant association between practice level and the type of two-wheeler commonly used. The study highlights that a considerable proportion of young drivers continue to exhibit low risk tolerance attitudes and inadequate knowledge. These findings underscore the importance of targeted awareness programs to enhance knowledge, foster positive attitudes, and promote safer driving practices among young riders.

Keywords: Knowledge, Attitude, Practice, Risk-taking behaviour, Young drivers.

INTRODUCTION AND BACKGROUND OF THE STUDY

Road traffic injuries constitute the leading cause of death among children and young adults aged 5-29 years worldwide and rank as the 12th leading cause when considering all age groups. Notably, two-thirds of these fatalities occur among working-age individuals (18-59 years), inflicting substantial health, social, and economic burdens on society. Young drivers face heightened vulnerability due to multiple risk factors, including high usage of electronic devices, driving inexperience, peer involvement, and inherent risk-taking tendencies. Driver distraction—often exacerbated by mobile phone usage—accounts for the majority of road accidents among this demographic.

In the context of Kozhikode District, characterised by dense urban traffic and a burgeoning population of young two-wheeler riders, evaluating their knowledge, attitude, and practice (KAP) regarding risk-taking behaviors assumes critical importance. Such an assessment yields essential insights into the underlying determinants of hazardous driving patterns. Although many young drivers demonstrate basic awareness of road safety measures (e.g., helmet usage), a persistent disparity exists between knowledge and actual practice, with only a fraction consistently adhering to safety protocols. This knowledge-practice gap underscores the imperative to investigate the attitudes shaping driving behaviors among Kozhikode's young drivers. The present descriptive study aims to assess the KAP levels concerning the adverse effects of risk-taking behaviors among nursing students who operate two-wheelers, thereby informing targeted interventions to enhance road safety within this high-risk cohort.

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Problem Statement

A Study to assess the knowledge, attitudes, and practices towards the ill effects of risk- taking behaviour among young drivers in selected colleges, Kozhikode.

Objectives

1. To assess the knowledge level regarding the ill effects of risk-taking behaviour among young drivers.
2. To assess the attitude towards the ill effects of risk-taking behaviour among young drivers
3. To assess the practice of risk-taking behaviour among young drivers.
4. To find the association between the practice of risk-taking behaviour and selected demographic variables.

Conceptual Framework

The study was based on Orem's self-care deficit theory.

Hypothesis

There is a significant association between selected demographic variables and the practice of risk-taking behaviour.

RESEARCH METHODOLOGY

Research Approach

A quantitative research approach was adopted for this study to systematically measure and analyse the knowledge, attitude, and practice levels regarding risk-taking behaviors among young drivers through numerical data and statistical inference.

Research Design

The study employed a non-experimental descriptive design to provide a comprehensive profile of the knowledge, attitude, and practice (KAP) levels among the target population without manipulating variables.

Population

The target population comprised all students aged 18-24 years driving two-wheelers at KMCT College of Nursing and School of Nursing, Manassery, Kozhikode, Kerala. This accessible population represented novice drivers frequently navigating dense urban traffic.

Sample and Sampling Technique

The sample consisted of 100 students selected based on predetermined inclusion criteria. A non-probability convenience sampling technique was utilized due to the time constraints and institutional accessibility, ensuring participants were readily available during the two-day data collection period.

Sampling Criteria

Inclusion Criteria:

Students currently driving two-wheelers to college (minimum 6 months experience)

Students aged 18-24 years holding valid driving licenses

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Students willing to participate voluntarily Students available during the study period

Exclusion Criteria:

Students not driving two-wheelers

Faculty members and non-student staff

Students unwilling to provide informed consent

Setting of the Study

The study was conducted at KMCT College of Nursing and School of Nursing, Manassery, Kozhikode District, Kerala.

Variables of the Study

Research Variables

Knowledge regarding ill effects of risk-taking behaviors

Attitude towards risk-taking behaviors

Practice of safe driving behaviors

Description of the Research Tool

A structured questionnaire comprising four distinct parts was developed and pre-tested for content validity and reliability:

Part I: Demographic Data (5 items)

Designed to elicit socio-demographic information including age, gender, course of study, type of two-wheeler commonly used, and driving experience.

Part II: Knowledge Assessment (10 structured multiple-choice questions)

Part III: Attitude Scale (10 Likert-type items)

Part IV: Practice Inventory (10 behavioral checklist items)

Reliability and Validity of the Tool

The reliability of the tool was assessed by experts and modifications were made in the tool as per the recommendations and suggestions of the experts in the field.

Data Collection Procedure

Data were collected using a structured questionnaire. Data collection commenced after obtaining approval from the Institutional Ethics Committee and securing permission from the concerned authorities at KMCT College of Nursing and KMCT School of Nursing. Participants were selected using a non-probability convenience sampling technique based on their availability and willingness to participate.

Before data collection, the investigator introduced the study to the students, explained its purpose, and provided information regarding confidentiality and voluntary participation. Digital informed consent was obtained from each eligible participant.

Ethical Considerations

The research proposal was presented before the research committee of KMCT College of Nursing, and

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approval was obtained. Ethical clearance for the study was secured from the Institutional Ethics Committee. Informed consent was obtained from all participants.

RESULTS

Demographic variables of the selected young drivers were analysed. According to age, among the 100 sample, 55% belonged to the age group of 21–23 years, whereas 35% were in the age group of 18–20 years, 8% were in the age group of 24–27 years, and 2% were in the age group of 27–30 years. According to gender, out of 100 subjects, 62% were females and 38% were males. According to the course of study, among the 100 sample, 85% were BSc Nursing students, 9% were GNM Nursing students, and 6% were PB BSc Nursing students. According to the type of two-wheeler commonly used, among the 100 sample, 63% used scooters, 34% used bikes, and 3% used other types of two-wheelers. According to driving experience, among the 100 samples, 26% had driving experience of 2–3 years, 23% had driving experience of 3–5 years, 22% had driving experience of more than 5 years, 15% had driving experience of less than one year, and 14% had driving experience of 1–2 years.

In this study, using the chi-square test, it was found that the type of two-wheeler commonly used showed a significant association with the practice level among young drivers.

SL NO	SOCIO DEMOGRAPHIC CHARACTERISTICS		FREQUENCY	PERCENTAGE
1	**AGE**	18-20 21-23 24-26 27-30 >30	35 55 8 2 -	35% 55% 8% 2% -
2	**GENDER**	Female Male Prefer not to say	62 38 -	62% 38% -
3	**COURSE OF STUDY**	BSC Nursing GNM Nursing PBBSC Nursing	85 9 6	85% 9% 6%
4	**TYPE OF TWO-WHEELER**	Scooter Bike	63 34	63% 34%
	COMMONLY USED	Others	3	3%
5	**DRIVING EXPERIENCE**	Less than 1 years 1-2 years 2-3 years 3-5 years >5 years	15 14 26 23 22	15% 14% 26% 23% 22

TABLE 1: Frequency and percentage distribution of the sample characteristics.

The study shows that 23 individuals had adequate knowledge, 68 had moderate knowledge and 9 had inadequate knowledge.

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LEVEL OF KNOWLEDGE	FREQUENCY	PERCENTAGE
Inadequate knowledge Moderate knowledge Adequate knowledge	9 68 23	9% 68% 23%

TABLE 2: - Knowledge level of young drivers

The study shows that 54% had low risk tolerance, 37% had mild risk tolerance, 7% had moderate risk tolerance and 2 % had high risk tolerance

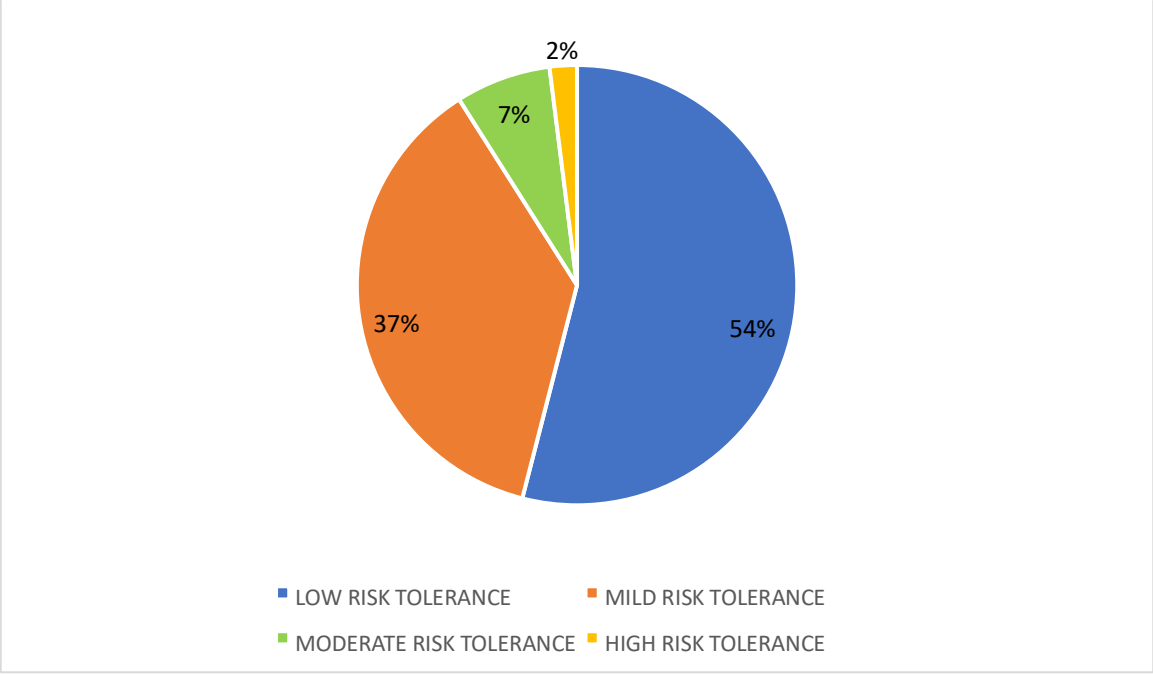

FIGURE 1: Attitude level of young drivers.

The study shows that none of the subjects had poor practice, 4% had moderate practice and 96% had good practice.

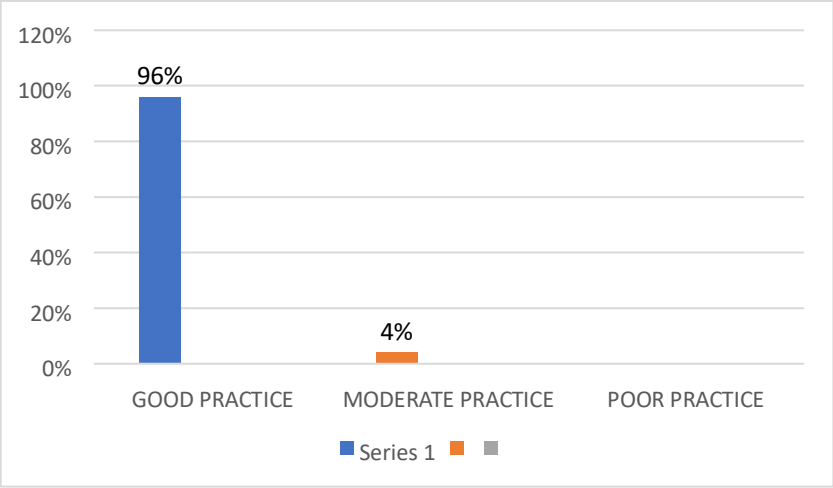

FIGURE 2: Practice level of young drivers.

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DISCUSSION

The present study assessed knowledge, attitude, and practice (KAP) regarding the ill effects of risk-taking behaviors among 100 young drivers in Kerala. Findings revealed that 9% demonstrated inadequate knowledge, 68% exhibited moderate knowledge, and 23% possessed adequate knowledge. Regarding attitudes, 54% displayed positive orientations (mean score = 20.21), while 96% reported good practice levels. These results highlight a predominance of moderate knowledge coupled with favorable attitudes and high behavioral compliance, suggesting that practice may be driven more by external factors than comprehensive understanding. These knowledge levels partially align with Sharma and Saini (2023), who evaluated KAP towards road traffic safety among 150 health science students in Uttarakhand. Their study reported predominantly moderate to low knowledge (81.3%), with only 18.7% demonstrating high knowledge—a slightly lower adequate knowledge rate compared to the current 23%. Both studies converge on favorable attitudes (75.4% good in Sharma & Saini vs. 54% positive here) and practices (78.7% vs. 96% good), indicating that educational exposure in institutional settings may foster attitudinal positivity and behavioral adherence despite knowledge gaps (Sharma & Saini, 2023). Similarly, a Malaysian study among 109 university students found 78% moderate knowledge and 72.5% good attitudes, reinforcing the pattern of moderate knowledge predominance observed here (68%) across diverse contexts (Shaaban, 2021). The consistently high practice rates (96% vs. 78.7% vs. 72.5%) suggest external enforcement mechanisms, such as helmet laws and traffic regulations in Kerala, may supersede the traditional knowledge-attitude-practice hierarchy (Park, 2025).

The significant association between two-wheeler type and practice level warrants attention. Scooter users (63%) demonstrated good practices comparable to bike users (34%), potentially reflecting design differences influencing risk perception—scooters' step-through frames and automatic transmission may reduce perceived complexity for novice riders (Faure et al., 2016). This aligns with Khan et al. (2021), who noted vehicle type influences behavioral patterns among young drivers, with easier-handling vehicles correlating to safer practices despite similar knowledge levels.

Limitations include the cross-sectional design precluding causality and potential self-report bias in practice assessment. Future longitudinal studies incorporating objective behavioral measures (e.g., driving simulators) could validate these findings. Nonetheless, results underscore the need for targeted interventions emphasizing knowledge enhancement while leveraging Kerala's high practice baseline, particularly scooter-centric training programs (Sreemol, 2023; George, 2025).

RECOMMENDATIONS

Replication Studies: Similar studies should be replicated with larger samples across diverse educational institutions and geographic settings to enhance generalizability.

Interventional Research: Experimental studies incorporating structured road safety education programs as interventions are recommended to bridge knowledge-practice gaps.

Longitudinal Follow-up: Prospective studies tracking knowledge retention and behavioral sustainability among young drivers over 6-12 months would validate intervention efficacy.

Vehicle-Specific Interventions: Tailored awareness campaigns targeting scooter riders, emphasizing risk compensation tendencies.

Curriculum Integration: Mandatory road safety modules within nursing curricula, leveraging institutional reach.

CONCLUSION

The present descriptive study assessed knowledge, attitude, and practice regarding the ill effects of risk-taking behaviors among 100 young two-wheeler drivers at KMCT College of Nursing and School of Nursing, Manassery, Kozhikode, utilizing a non-probability convenience sampling technique. Data were collected through structured demographic proforma, knowledge questionnaire, attitude rating scale, and practice

inventory. Key findings revealed moderate knowledge predominance (68%), favorable attitudes (54% low risk tolerance), and exemplary practices (96% good). Specifically, 23 individuals demonstrated adequate knowledge, 68 moderate, and 9 inadequate; attitudes comprised 54 low risk tolerance, 37 mild, 7 moderate, and 2 high risk tolerance; practices showed 96 good, 4 moderate, and 0 poor. A significant association emerged between practice level and type of two-wheeler used, underscoring vehicle-specific behavioral patterns. Despite commendable practices, persistent knowledge deficits and suboptimal attitudes necessitate targeted educational interventions. These findings advocate integrating comprehensive road safety training within nursing education to cultivate sustained safer driving behaviors among young drivers, ultimately mitigating Kozhikode's road traffic injury burden.

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