Knowledge And Attitude Regarding Road Safety Measures Among Adolescents

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I. BACKGROUND OF STUDY

Road Traffic Accidents constitutes a grave public health challenge across the globe. The global Burden of disease study undertaken collaboratively by the World Health organization, Harvard university, and the World Bank, projected that traffic accidents would emerge as the world's third leading cause of death and disability by the year 2020.

Human factors are among the dominant causes of road traffic injuries, improving adolescents 'awareness, attitudes, and perceptions regarding road safety measures is crucial to address the burden of accidents and enhance preventive strategies.

Assessing the knowledge and attitude towards road safety among adolescents will help identify gaps and inform targeted interventions to promote safer practices and reduce traffic-related morbidity and mortality.

II. NEED FOR STUDY

The significance of road safety measures lies not only in preventing loss of life and reducing physical harm, but also in minimizing the social and economic costs borne by families, communities. Assessing existing road safety practices and identifying gaps will help in planning targeted interventions, improving compliance and enhancing road user safety. The significance of this study lies in its potential to contribute to evidence-based planning, guide policymakers and health professionals and ultimately reduce Road Traffic Injuries and fatalities thereby improving public health outcomes.

STATEMENT OF THE PROBLEM

A study to assess the knowledge and attitude regarding Road Safety Measures among adolescents in a selected college Thrissur.

III. OBJECTIVES OF THE STUDY

1) To assess the level of knowledge and attitude regarding Road Safety Measures among adolescents.
2) To find the association between knowledge and attitude regarding Road Safety Measures among adolescents with their selected demographic variables
3) To find the correlation between knowledge and attitude regarding Road Safety Measures among adolescents.
4) To develop and distribute an information booklet on Road Safety Measures.

IV. OPERATIONAL DEFINITIONS

- Assess – A way of finding out the knowledge and attitude regarding Road Safety Measures among adolescents.
- Knowledge – In this study knowledge refers to the correct responses given by adolescents regarding Road Safety Measures.
- Attitude – In this study Attitude refers the opinions and feelings of adolescents toward Road Safety Measures.
- Road Safety Measures– It refers to the rules and practices followed to prevent Road Traffic Accidents.

- Adolescents – It refers to college students aged 19-24 years

ASSUMPTIONS

- The students may have some knowledge regarding Road Safety Measures.
- Selected demographic variables may have an influence on knowledge and attitude regarding Road Safety Measures among Adolescents.

V. HYPOTHESIS

H01: There is no significant association between knowledge and attitude regarding Road Safety Measures among adolescents with their selected demographic variables.
H1: There is a significant association between knowledge and attitude regarding Road Safety Measures among adolescents with their selected demographic variables.
H02: There is no significant correlation between knowledge and attitude regarding Road Safety Measures among adolescents with their selected demographic variables.
H2: There is a significant correlation between knowledge and attitude regarding Road Safety Measures among adolescents with their selected Demographic variables.

DELIMITATIONS

- The study setting is limited to Aswini College of Nursing. ➢ The study is limited only to the 7th & 8th Semester nursing students of Aswini College of Nursing.
- Sample size is limited to 100.

VI. REVIEW OF LITERATURE

1) Literature review of knowledge regarding Road Safety Measures among adolescents.
2) Literature review of attitude regarding Road Safety Measures among adolescents.
3) Literature review of association between knowledge and attitude regarding Road Safety Measures among adolescents.
4) Literature review of correlation between knowledge and attitude regarding Road Safety Measures among adolescents.

VII. RESEARCH METHODOLOGY

RESEARCH APPROACH: Quantitative research approach
RESEARCH DESIGN: cross - sectional descriptive Research design
SAMPLE: 7th and 8th semester BSc nursing students studying in Aswini college of nursing, Thrissur
SAMPLE SIZE: 100samples
SAMPLING TECHNIQUE: Convenient random Sampling Technique
SETTING OF THE STUDY: Aswini college of nursing, Nadathara, Thrissur.

CRITERIA FOR SAMPLE SELECTION
INCLUSION CRITERIA: -

- Late adolescents between 19 – 24 years
- Undergraduate nursing students
- Late adolescents who were present during data collection

EXCLUSION CRITERIA

- Students who were not willing to participate.
- Students who were absent during data collection.

DESCRIPTION OF THE TOOL
Section A: Socio Demographic Profile
It consisted of 8 items which includes age, gender, primary mode of transport, distance travelled daily, use of safety measures, source of road safety information, history of Road Traffic Accident, number of attended class of road safety measures

Section B: Structured knowledge questionnaire regarding Road Safety Measures
It consists of 25 questions regarding road safety measures. The questions were structured with multiple choice questions with one correct answer 3 distractors. Each correct response carried 1 mark and the wrong answer carried zero marks. The maximum score was 25 and minimum zero.

Score key
Inadequate knowledge - 0%
Moderate knowledge - 2%
Adequate knowledge - 98%

Section C: Attitude scale regarding Road Safety measures

Attitude scale consisted of 25 questions regarding road safety measures the researcher prepared an attitude assessment scale with five choices Strongly Agree, Agree, Uncertain, Disagree, Strongly Disagree. The score assigned to Strongly Agree- 5, Agree - 4, Uncertain - 3, Disagree 2, Strongly Disagree - 1. Total score - 125.To interpret the level of attitude, the score was distributed as follows

Score key
Poor attitude 0 to 30
Good attitude 31 to 61
Very good attitude 62 to 93
Excellent attitude 94 -125

VIII. DATA COLLECTION PROCESS

Data collection was done on 03/03/2026. Convenient random sampling method was used to select the 100 samples based on the sampling criteria

PLAN FOR DATA ANALYSIS

The data obtained was analysed according to the objectives by using Descriptive statistics and Inferential statistics.

Objective 1: To assess the level of knowledge regarding road safety measures among adolescents

The present study showed that 98% of adolescents had adequate knowledge regarding road safety measures, while only 2% had moderate knowledge. This high level of knowledge may be attributed to the fact that 85% of respondents received information through media, indicating the strong role of mass media in spreading awareness. Similar findings were reported in other studies where adolescents demonstrated good knowledge due to increased exposure to educational campaigns and media sources.

Objective 2: To determine the level of attitude regarding road safety measures among adolescents.

The findings revealed that 91% of respondents had an excellent attitude and 8% had a very good attitude towards road safety measures. This indicates a positive mind-set among adolescents regarding safe practices. These results are consistent with studies showing that increased awareness leads to improved attitudes toward road safety.

Objective 3: To find the association between the knowledge and demographic variables regarding road safety measures among adolescents.

The study found no significant association between knowledge and selected demographic variables such as age, gender, mode of transport, distance travelled, safety practices, and source of information ($p > 0.05$). This finding suggests that knowledge regarding road safety is uniformly distributed among adolescents, irrespective of demographic characteristics. Similar results were observed in previous studies where no statistically significant association was found between knowledge and demographic variables.

Objective 4: To determine the association between the attitude and demographic variables related to road safety measures among adolescents.

Similarly, there was no significant association between attitude and demographic variables. This indicates that positive attitudes toward road safety are consistent across different groups of adolescents. Previous studies also support this finding, suggesting that attitude is influenced more by general awareness and social influence rather than demographic factors

Objective 5: To find the correlation between knowledge and attitude regarding road safety measures among adolescents.

The study revealed a strong positive correlation ($r = 0.945$, $p = 0.001$) between knowledge and attitude. This implies that as knowledge increases, attitude also improves. This finding is highly significant and aligns with existing literature, which states that knowledge plays a crucial role in shaping positive attitudes toward health-related behaviors.

Nursing Practice

- Nurses should routinely assess adolescents' knowledge, beliefs and attitude towards road safety and provide structured teaching on road safety measures such as helmet use, seatbelt use, following traffic rules and dangers of mobile phone use while driving.
- Since a considerable proportion of adolescents were not using safety measures despite having adequate knowledge, nurses should focus on behavioral change strategies not just information dissemination.

- Implement strategies like counselling, motivational interviewing and peer education to promote positive attitudes and safe behaviors.

Nursing Research

- The findings provide a base for conducting further research on behavioral aspects of road safety.
- Investigate factors such as peer influence, parental supervision, media exposure and risk-taking behaviour affecting adolescent's road safety practices.
- Interventional studies can be designed to evaluate the effectiveness of educational and behavioral modification programs.
- Encourage collaborative research involving nursing, public health, psychology and traffic safety authorities.
- Generate strong evidence to support policy making and nursing interventions aimed at adolescent safety.

Nursing Administration

- Nurse administrators should plan and organise road safety awareness programs in schools and community settings and develop and implement policies that promote adolescent safety and accident prevention within health care and community services.
- Organise community-based awareness campaigns on road safety measures.
- Nurse administrators should take initiative in organizing structured road safety education programs in schools and colleges.

Nursing education

- Road safety education and accident prevention topics should be incorporated into community health nursing and adolescent health subjects.
- Interactive teaching methods can improve understanding and compliance related to road safety measures.
- Train nursing students to effectively deliver health education programmes on road safety in schools and communities.
- Ensure students are trained in basic trauma care and first aid enabling them to teach adolescent emergency response.

IX. LIMITATION

- The study was limited only to the seventh and eighth semester nursing students of Aswini College of Nursing.
- The study was limited to a short period.

X. RECOMMENDATIONS

- Similar studies can be conducted on a larger sample for better generalization.
- Comparative studies can be done between rural and urban adolescents. Interventional studies can be conducted to improve safety practices.
- Educational programs focusing on behaviour change should be implemented.
- Studies can explore barriers to the use of safety measures.

XI. CONCLUSION

The study found that adolescents demonstrated high levels of knowledge regarding road safety measures. The majority also exhibited a positive attitude toward road safety. Despite adequate knowledge and attitude, practice gaps were evident, particularly in the use of safety

measures There was no significant association between knowledge/attitude and demographic variables. A strong positive correlation exists between knowledge and attitude. Thus, improving knowledge can significantly enhance attitudes, but additional strategies are needed to translate these into safe practices.

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