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BEHAVIOURAL FACTORS ASSOCIATED WITH ROAD SAFETY PRACTICES AMONG YOUNG DRIVERS IN MALAYSIA

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ABSTRACT

This study examines behavioural factors associated with road safety practices among young drivers in Malaysia. Young drivers are commonly linked to higher road accident risk due to limited driving experience, risk-taking tendencies, and unsafe driving practices. Specifically, this study investigates the relationships between speeding driving behaviour, driver distraction activities, traffic rules violation, and young drivers' behaviour toward road safety. A quantitative cross-sectional survey was conducted using an online questionnaire distributed to young drivers in Selangor, Johor, and Perak. A total of 384 valid responses were analysed using inferential tests which include independent sample t-test, and Pearson correlation analysis. The independent sample t-test shows no significant difference in young drivers' behaviour based on gender. The Pearson correlation results indicate that speeding driving behaviour, driver distraction activities, and traffic rules violation are significantly and positively associated with young drivers' behaviour toward road safety. Among the three variables, traffic rules violation recorded the strongest correlation, followed by driver distraction activities and speeding driving behaviour. These findings suggest that risky driving practices remain important behavioural issues among young drivers in Malaysia. The study highlights the need for continuous road safety education, targeted awareness campaigns, and stronger enforcement strategies to reduce unsafe driving behaviour among young drivers.

Keywords: Young driver, driver behaviour, traffic rules violation, road safety, perceived behavioural control

INTRODUCTION

Road traffic accidents are still a major public safety problem worldwide, imposing a heavy social, economic and health burden on society. Road accidents are a major concern in Malaysia and a significant percentage of the accidents are caused by human factors, particularly dangerous driving behaviour. Some 1.2 million road accidents occurred in Malaysia from 2021 to August 2023, which led to 13,516 deaths, said the Police Traffic Investigation and Enforcement Department (JSPT). A significant proportion of these accidents were found to be related to driver negligence thus highlighting the need for more attention to behavioural issues affecting road safety (Ramanujam, 2023).

Young drivers are among the most vulnerable and high risk road users and this is widely accepted. Young drivers are more likely to take risks, have less experience and are worse at spotting hazards than older drivers. Harith (2022) defined young drivers as those who are between the ages of 18 and 25 years. The Malaysia Institute of Road Safety Research (MIROS) found that drivers between the ages of 15 and 25 years were the most vulnerable to road traffic accidents in Malaysia (Jamaluddin et al., 2015). The above data shows that age and driving experience play a significant role in driving behaviour and accident participation.

National accident statistics show the seriousness of the problem. More than 50% of the 14,308 road traffic fatalities that occurred in Malaysia from 2019-2021 involved young drivers. On an average, young drivers are involved in 7077 cases of accidents each year and about 4769 deaths are caused (Lye, 2022). The disconcerting statistics indicate that young drivers are over-represented in road accident and fatality data, and thus a key demographic for road safety initiatives and behavioural research.

Previous studies have highlighted specific behavioural traits associated with dangerous driving practices in young drivers. These variables include over-speeding, driver distractions and violation of traffic laws. Excessive speeding is known to be a major factor in road accidents, affecting reaction time and the severity of the collision. Likewise, driver distraction behaviours, such as using a mobile phone, texting, making calls and non-driving activities also impact drivers' focus and situational awareness. Additionally, traffic regulation violations such as speeding, reckless driving, and not following road signs and signals contribute to a higher probability of traffic accidents and deaths. The road safety literature is building momentum, however, more studies are needed to understand how these behavioural aspects influence young drivers' perceptions of road safety in Malaysia.

This study aims to examine the relationships between speeding driving behaviour, driver distraction activities, traffic rules violation, and young drivers' behaviour toward road safety in Malaysia. For the purpose of this study, young drivers are defined as licensed drivers aged between 17 and 25 years. This age range is consistent with the legal driving age in Malaysia and represents a group that is commonly associated with higher road safety risk due to limited driving experience and greater exposure to risky driving practices.

The study focuses on respondents from three Malaysian states, namely Selangor, Johor, and Perak. These states were selected because they have recorded relatively high numbers of road accident cases. Deputy Inspector-General of Police Datuk Razarudin Husain reported that Selangor recorded 2,160 accident cases, followed by Johor with 1,372 cases and Perak with 982 cases (Bernama, 2023). Therefore, these states provide a relevant context for examining behavioural factors associated with young drivers' road safety practices.

A quantitative cross-sectional survey design was adopted. Data were collected using an online questionnaire distributed through Google Forms. The questionnaire consisted of 35 items measuring four main constructs: Young Drivers' Behaviour (YDB), Speeding Driving Behaviour (SDB), Driver Distraction Activities (DDA), and Traffic Rules Violation (TRV). Responses were measured using a five-point Likert scale. A total of 384 valid responses were obtained and analysed using descriptive statistics, reliability analysis, independent sample t-test, and Pearson correlation analysis.

This study is expected to contribute to the existing body of knowledge on young drivers' road safety behaviour in Malaysia. The findings provide empirical evidence on behavioural factors associated with risky driving practices among young drivers. The results may assist policymakers, road safety agencies, educators, and enforcement authorities in developing more targeted intervention programmes, awareness campaigns, and enforcement strategies to promote safer driving behaviour among young road users.

The objectives of this study are as follows:

1. To examine the relationship between speeding driving behaviour and young drivers' behaviour toward road safety.
2. To examine the relationship between driver distraction activities and young drivers' behaviour toward road safety.
3. To examine the relationship between traffic rules violation and young drivers' behaviour toward road safety.

PROBLEM STATEMENT

Road traffic incidents involving young drivers remain a major public safety concern in Malaysia. Despite continuous efforts by government agencies and road safety organisations to reduce accident rates, young drivers continue to be disproportionately involved in road crashes and fatalities. Their limited driving experience, tendency toward risk-taking, and inconsistent adherence to traffic regulations make them more vulnerable than other driver groups. Therefore, understanding the behavioural factors associated with young drivers' road safety practices is important for developing more effective road safety interventions, educational programmes, and enforcement strategies.

Previous studies have identified several risky driving behaviours commonly associated with accident involvement among young drivers. One of the key concerns is low compliance with safe driving practices, including seat belt use. Ibrahim et al. (2020) found that behavioural factors in the Theory of Planned Behaviour, including attitude, subjective norms, and perceived behavioural control, influence young drivers' intention to use seat belts. Zhou et al. (2016) further highlighted that individuals may repeat behaviours observed from important social referents. Therefore, young drivers may imitate either safe or risky driving practices based on the behaviour of their peers and surrounding social environment.

Speeding is another important behavioural issue associated with road safety risk. Excessive speed reduces reaction time, increases stopping distance, and contributes to more severe crash outcomes. Studies have shown that speeding is frequently linked to young drivers because they may underestimate road hazards and overestimate their own driving ability. Road characteristics, such as wider lanes, good pavement conditions, and high road accessibility, may also encourage drivers to exceed speed limits. As such, speeding remains a critical behavioural concern in improving road safety among young drivers.

Driver distraction also contributes significantly to unsafe driving behaviour. Safe driving requires continuous attention, quick decision-making, and coordination of cognitive and physical skills. However,

the widespread use of mobile phones and other in-vehicle activities has increased the risk of distraction among drivers. Young drivers are particularly vulnerable because smartphone use, texting, social media engagement, phone calls, and other non-driving activities may reduce attention to the road and increase the likelihood of unsafe driving practices.

In addition, traffic rules violation remains a persistent issue among young drivers. Violations such as ignoring traffic signals, unsafe overtaking, speeding, reckless driving, and failure to comply with road signs and safety regulations may increase road safety risks. Such behaviour reflects weak compliance with traffic laws and may indicate poor safety awareness among young drivers. These violations not only endanger the drivers themselves but also create risks for passengers, pedestrians, and other road users.

Although previous studies have examined unsafe driving behaviour, further empirical evidence is needed to understand how speeding driving behaviour, driver distraction activities, and traffic rules violation are associated with young drivers' behaviour toward road safety in Malaysia. Therefore, this study focuses on examining the relationships between these behavioural factors and young drivers' road safety behaviour. The findings are expected to provide useful insights for policymakers, educators, enforcement agencies, and road safety organisations in designing targeted strategies to encourage safer driving practices among young drivers.

LITERATURE REVIEW

Young Drivers' Behaviour

Young drivers are widely recognised as one of the most vulnerable groups of road users due to their higher involvement in road traffic accidents compared with other age groups. The definition of young drivers may vary across countries depending on the legal driving age and national road safety regulations. In Malaysia, young drivers are commonly associated with individuals who have recently obtained a driving licence and are still developing driving experience, hazard perception skills, and safe decision-making practices.

Previous studies have shown that young drivers are more likely to engage in risky driving behaviours than older and more experienced drivers. This may be due to limited driving experience, overconfidence, sensation-seeking tendencies, peer influence, and weaker awareness of road safety risks. Young drivers may also underestimate the consequences of unsafe driving behaviours, which increases their likelihood of being involved in road accidents and traffic-related injuries.

Several behavioural factors have been commonly linked to young drivers' road safety practices. These include speeding driving behaviour, driver distraction activities, and traffic rules violation. Speeding reduces reaction time and increases the severity of crashes. Driver distraction, particularly through mobile phone use and other non-driving activities, reduces concentration and situational awareness. Traffic rules violation, such as ignoring traffic signals, unsafe overtaking, and non-compliance with road regulations, also increases accident risk. Therefore, understanding these behavioural factors is important for improving road safety among young drivers in Malaysia.

Speeding Driving Behaviour

Speeding driving behaviour refers to driving above the legal speed limit or driving too fast for existing road, traffic, or environmental conditions. Speeding is widely recognised as one of the major contributors

to road traffic accidents because it reduces the driver's ability to respond to unexpected situations, increases stopping distance, and worsens the severity of collisions.

Young drivers are often associated with speeding behaviour due to overconfidence, thrill-seeking tendencies, peer pressure, and limited perception of road hazards. Alver et al. (2014) reported that excessive speeding is frequently identified as a significant factor in road incidents involving young drivers. Young drivers may also underestimate the risks associated with high-speed driving and overestimate their ability to control the vehicle in risky situations.

Road characteristics may further influence speeding behaviour. Kong et al. (2020) found that road features such as wider lanes, good pavement conditions, and better road accessibility may encourage drivers to exceed speed limits. Such conditions may create a false sense of safety and lead drivers to drive faster than allowed. Based on these arguments, speeding driving behaviour is expected to be positively associated with young drivers' behaviour toward road safety.

Driver Distraction Activities

Driver distraction refers to any activity, object, event, or interaction that diverts a driver's attention away from the main driving task. Safe driving requires continuous attention, quick decision-making, visual awareness, and physical control of the vehicle. When drivers are distracted, their ability to respond to hazards is reduced, increasing the likelihood of unsafe driving behaviour and road accidents.

Driver distraction is particularly relevant among young drivers because they are more likely to use mobile phones, engage with passengers, adjust in-vehicle devices, listen to music, or perform other non-driving activities while driving. Hedlund et al. (2006) and Regan et al. (2011) explained that distraction occurs when attention is diverted from driving-related tasks to competing activities. Young and inexperienced drivers may find it more difficult to manage such distractions because they are still developing driving skills and hazard perception.

The growing use of smartphones has further increased concerns about distracted driving among young drivers. Activities such as texting, answering calls, using social media, and checking navigation applications may reduce drivers' concentration and increase reaction time. These behaviours can compromise road safety, especially when performed in complex traffic conditions. Therefore, driver distraction activities are expected to be positively associated with young drivers' behaviour toward road safety.

Traffic Rules Violation

Traffic rules violation refers to behaviour that breaches traffic laws and road safety regulations. These violations include speeding, running red lights, unsafe overtaking, reckless driving, failure to wear a seat belt, and non-compliance with road signs and signals. Traffic rules are designed to regulate driver behaviour and reduce the risk of accidents. Therefore, violation of these rules may increase the likelihood of unsafe driving outcomes.

Compliance with traffic rules is influenced by drivers' knowledge, attitudes, perceived risk, enforcement awareness, and social norms. Agustin (2019) found that knowledge of traffic regulations can influence driver compliance behaviour. Drivers who have weak understanding of traffic rules or who perceive certain rules as unimportant may be more likely to violate them.

Traffic violations have been consistently associated with higher accident risk. Ben Laoula et al. (2023) showed that violations such as speeding, reckless driving, and failure to obey signals can increase the probability of traffic accidents. Jafarpour and Rahimi-Movaghar (2014) further argued that many risky driving behaviours are intentional and may be motivated by urgency, convenience, or personal benefit. Among young drivers, such violations may be linked to risk-taking tendencies, weak safety awareness, and lower compliance with road regulations. Therefore, traffic rules violation is expected to be positively associated with young drivers' behaviour toward road safety.

Hypothesis Development

Based on the reviewed literature, speeding driving behaviour, driver distraction activities, and traffic rules violation are important behavioural factors associated with young drivers' behaviour toward road safety (see Figure 1). Previous studies have consistently shown that these factors contribute to unsafe driving practices and increase road safety risks.

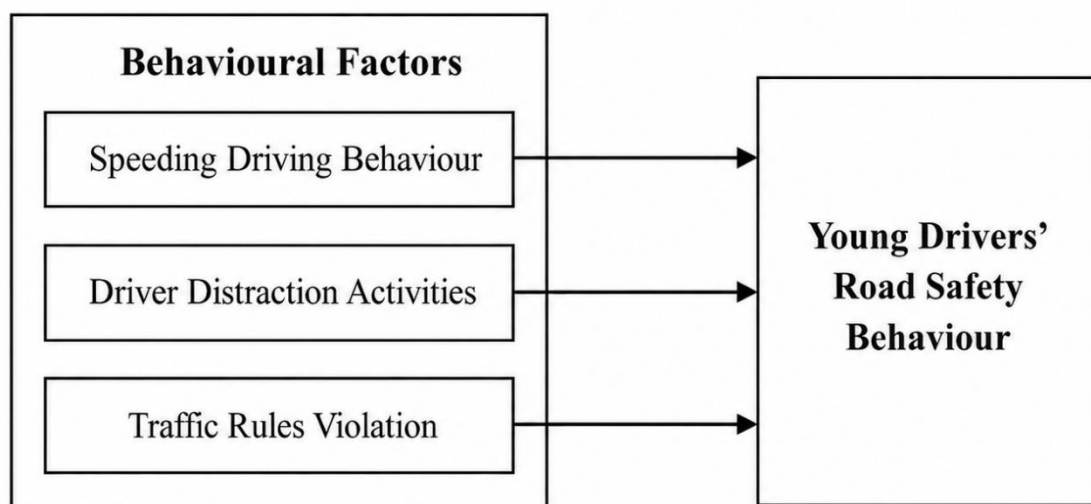


Figure 1

Conceptual Framework of Behavioural Factors Associated with Young Drivers' Road Safety Behaviour in Malaysia

In line with the correlation-based focus of this study, the following hypotheses are proposed:

1. H1: There is a significant positive relationship between speeding driving behaviour and young drivers' behaviour toward road safety.
2. H2: There is a significant positive relationship between driver distraction activities and young drivers' behaviour toward road safety.
3. H3: There is a significant positive relationship between traffic rules violation and young drivers' behaviour toward road safety.

RESEARCH METHODOLOGY

Research Design

This study adopted a quantitative cross-sectional survey design to examine behavioural factors associated with young drivers' road safety behaviour in Malaysia. A quantitative approach was considered appropriate because it allows numerical data to be collected and analysed systematically to examine the relationships between the study variables. The cross-sectional design was used because data were collected from respondents at one point in time.

The study focused on examining the strength and direction of the relationships between behavioural factors namely Speeding Driving Behaviour (SDB), Driver Distraction Activities (DDA), and Traffic Rules Violation (TRV) and young drivers' road safety behaviour.

Population and Sampling

The target population of this study consisted of licensed young drivers aged between 17 and 25 years in Malaysia. The study focused on respondents from three states, namely Selangor, Johor, and Perak, because these states recorded relatively high road accident cases and were considered relevant for examining road safety behaviour among young drivers.

A total of 384 valid responses were obtained for analysis. Convenience sampling was used due to its practicality and accessibility in reaching eligible respondents within the selected states. Although this sampling approach limits the generalisability of the findings, it enabled the researchers to obtain responses from young drivers with different demographic backgrounds, driving experiences, and driving habits. The unit of analysis for this study was the individual young driver.

Research Instrument

Data were collected using a structured questionnaire developed based on relevant literature and adapted from previously established measurement items. The questionnaire consisted of 35 items measuring four main constructs: Young Drivers' Behaviour (YDB), Speeding Driving Behaviour (SDB), Driver Distraction Activities (DDA), and Traffic Rules Violation (TRV).

The questionnaire was divided into sections covering respondents' demographic information and the main study constructs. The items were measured using a five-point Likert scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree. The use of a Likert scale was appropriate because it allowed respondents to indicate their level of agreement with statements related to driving behaviour and road safety practices.

Data Collection Procedure

Data were collected through an online questionnaire using Google Forms. The online survey method was selected because it allowed respondents from different geographical locations to participate conveniently. Prior to distribution, the questionnaire was checked to ensure clarity, relevance, and alignment with the objectives of the study.

The survey link was distributed through online communication channels and social media platforms. Participation was voluntary, and respondents were informed about the purpose of the study before

completing the questionnaire. Only responses from licensed young drivers aged between 17 and 25 years from Selangor, Johor, and Perak were included in the final analysis.

Data Analysis Techniques

The collected data were coded and analysed using IBM Statistical Package for the Social Sciences (SPSS). Descriptive analysis was conducted to summarise the demographic profile of respondents, including gender, age, ethnicity, state, and driving experience.

Reliability analysis was performed using Cronbach's Alpha to assess the internal consistency of the measurement items for each construct. A Cronbach's Alpha value of 0.70 and above was considered acceptable for indicating reliable measurement items.

An independent sample t-test was conducted to examine whether there was a significant difference in young drivers' behaviour based on gender. Pearson correlation analysis was then used to examine the strength and direction of the relationships between Speeding Driving Behaviour (SDB), Driver Distraction Activities (DDA), Traffic Rules Violation (TRV), and Young Drivers' Behaviour (YDB). These analyses were used to address the research objectives and test the hypotheses developed in this study.

RESEARCH FINDINGS

A total of 384 valid responses were obtained from licensed young drivers. The respondents were almost evenly distributed by gender, with 53.1% male and 46.9% female respondents. Most respondents were young drivers within the target age group of 17 to 25 years. In terms of ethnicity, Chinese respondents represented the largest group, followed by Malay and Indian respondents. Geographically, the respondents were from Johor, Selangor, and Perak, which are among the states with relatively high road accident cases in Malaysia. In terms of driving experience, most respondents had between six and ten years of driving experience, while the remaining respondents had either less than five years or more than ten years of driving experience. Overall, the demographic profile indicates that the sample was appropriate for examining behavioural factors associated with young drivers' road safety behaviour in Malaysia.

Reliability Analysis

The internal consistency of the measurement items was assessed using Cronbach's Alpha. Table 1 presents the reliability results for the four constructs examined in this study.

Table 1
Reliability Statistics

Variable	No. of Items	Cronbach's Alpha	Status
Young Drivers' Behaviour (YDB)	6	.744	Good
Speeding Driving Behaviour (SDB)	12	.859	Good
Driver Distraction Activities (DDA)	9	.761	Good
Traffic Rules Violation (TRV)	8	.852	Good

The results show that the Cronbach's Alpha values ranged from .744 to .859. Since all values exceeded the recommended threshold of .70, the measurement items demonstrated acceptable internal consistency.

Therefore, the constructs used in this study were considered reliable and suitable for further statistical analysis.

Independent Sample t-Test

An independent sample t-test was conducted to examine whether there was a significant difference in young drivers' road safety behaviour based on gender. Table 2 presents the mean scores for male and female respondents.

Table 2

Independent Sample t-Test Results by Gender

Gender	n	Mean
Male	204	4.407
Female	180	4.401

Note. The independent sample t-test showed no statistically significant difference in young drivers' road safety behaviour between male and female respondents, $p = .893$.

The findings indicate that male respondents recorded a slightly higher mean score ($M = 4.407$) than female respondents ($M = 4.401$). However, the difference was not statistically significant, $p = .893$. This suggests that male and female young drivers in this study demonstrated similar levels of road safety behaviour. Therefore, gender did not appear to create a meaningful difference in young drivers' road safety behaviour among the respondents.

Pearson Correlation Analysis

Pearson correlation analysis was conducted to examine the relationships between Speeding Driving Behaviour (SDB), Driver Distraction Activities (DDA), Traffic Rules Violation (TRV), and Young Drivers' Behaviour (YDB). Table 3 presents the correlation results.

Table 3

Pearson Correlation Analysis

Variable	Young Drivers' Behaviour (YDB)
Speeding Driving Behaviour (SDB)	.533**
Driver Distraction Activities (DDA)	.565**
Traffic Rules Violation (TRV)	.588**

*Note. ** $p < .01$.*

The results show that all three behavioural factors were significantly and positively associated with young drivers' behaviour toward road safety. Speeding Driving Behaviour had a moderate positive relationship with Young Drivers' Behaviour ($r = .533$, $p < .01$). Driver Distraction Activities also showed a moderate positive relationship with Young Drivers' Behaviour ($r = .565$, $p < .01$). Among the three variables, Traffic Rules Violation recorded the strongest positive relationship with Young Drivers' Behaviour ($r = .588$, $p < .01$).

These findings indicate that higher levels of speeding behaviour, driver distraction activities, and traffic rules violation were associated with higher levels of risky road safety behaviour among young drivers. Therefore, all three hypotheses proposed in this study were supported.

Summary of Findings

Overall, the findings show that the measurement items used in this study were reliable. The independent sample t-test indicated that young drivers' road safety behaviour did not differ significantly between male and female respondents. The Pearson correlation analysis confirmed that Speeding Driving Behaviour, Driver Distraction Activities, and Traffic Rules Violation were significantly and positively associated with Young Drivers' Behaviour. Among these factors, Traffic Rules Violation showed the strongest relationship with Young Drivers' Behaviour, followed by Driver Distraction Activities and Speeding Driving Behaviour. These results suggest that risky driving practices remain important behavioural issues that need to be addressed in efforts to improve road safety among young drivers in Malaysia.

DISCUSSION

The findings of this study show that the measurement items demonstrated acceptable internal consistency, indicating that the constructs used in this study were reliable for further analysis. The results also revealed that Speeding Driving Behaviour (SDB), Driver Distraction Activities (DDA), and Traffic Rules Violation (TRV) were significantly and positively associated with Young Drivers' Behaviour (YDB). These findings suggest that risky driving practices are closely linked to young drivers' road safety behaviour in Malaysia. The significant positive relationship between speeding driving behaviour and young drivers' behaviour indicates that young drivers who demonstrate higher tendencies toward speeding are also more likely to show risky road safety behaviour. This finding is consistent with previous studies suggesting that young drivers are more prone to speeding due to overconfidence, sensation-seeking tendencies, peer influence, and limited perception of road hazards. Excessive speed reduces reaction time, increases stopping distance, and increases the severity of road crashes. Therefore, speeding remains an important behavioural issue that must be addressed in road safety interventions targeting young drivers.

The findings also show a significant positive relationship between driver distraction activities and young drivers' behaviour. This indicates that young drivers who engage more frequently in distracting activities are more likely to demonstrate risky road safety behaviour. This result is consistent with the Theory of Planned Behaviour, which explains that behavioural intention and actual behaviour may be influenced by attitudes, subjective norms, and perceived behavioural control. In this context, young drivers may engage in distracting activities such as using mobile phones, texting, answering calls, interacting with passengers, or adjusting in-vehicle devices because they perceive such behaviour as normal, manageable, or socially acceptable. However, these activities reduce driving attention and increase the likelihood of unsafe driving behaviour.

Traffic rules violation recorded the strongest positive relationship with young drivers' behaviour among the three behavioural factors examined. This suggests that non-compliance with traffic regulations is the most closely associated factor with risky road safety behaviour in this study. Traffic rules violation may include actions such as ignoring traffic signals, unsafe overtaking, reckless driving, failure to comply with road signs, and failure to follow safety regulations. Such behaviours indicate weak compliance with road safety rules and may reflect poor safety awareness, risk-taking tendencies, or low perceived enforcement risk among young drivers.

Overall, the findings confirm that speeding driving behaviour, driver distraction activities, and traffic rules violation are important behavioural factors associated with young drivers' road safety behaviour. These results highlight the need for continuous and targeted interventions to reduce risky driving practices among young drivers in Malaysia. Road safety education should be strengthened to improve awareness of the consequences of speeding, distraction, and traffic rule violations. In addition, awareness campaigns should focus on practical driving behaviours, such as avoiding mobile phone use while driving, complying with traffic signals, observing speed limits, and maintaining full attention on the road.

The findings also suggest that enforcement strategies remain important in shaping safer driving behaviour. Stronger monitoring, consistent traffic enforcement, and the use of traffic surveillance technologies may help discourage violations among young drivers. At the same time, collaboration between policymakers, educational institutions, enforcement agencies, and road safety organisations is essential to build a stronger road safety culture. These coordinated efforts may contribute to safer driving practices and help reduce road accident risks among young drivers in Malaysia.

CONCLUSION

This study examined the relationships between Young Drivers' Behaviour (YDB) and three behavioural factors, namely Speeding Driving Behaviour (SDB), Driver Distraction Activities (DDA), and Traffic Rules Violation (TRV). The findings indicate that all three behavioural factors were significantly and positively associated with young drivers' behaviour toward road safety in Malaysia. Among the three factors, Traffic Rules Violation recorded the strongest relationship with Young Drivers' Behaviour, followed by Driver Distraction Activities and Speeding Driving Behaviour.

These findings suggest that risky driving practices remain important issues among young drivers. Young drivers who show higher tendencies toward speeding, distraction while driving, and violation of traffic rules are more likely to demonstrate risky road safety behaviour. Therefore, road safety initiatives should continue to focus on reducing unsafe driving practices among young drivers through education, awareness, and enforcement.

This study provides practical implications for policymakers, road safety agencies, educators, and enforcement authorities. Road safety education should be strengthened to increase young drivers' awareness of the risks associated with speeding, mobile phone use while driving, unsafe overtaking, ignoring traffic signals, and other violations of traffic regulations. Awareness campaigns should also be designed to encourage responsible driving habits and promote compliance with road safety rules. In addition, consistent enforcement through road surveillance, patrol activities, checkpoints, and traffic monitoring technologies may help reduce risky driving behaviour among young drivers.

Despite its contribution, this study has several limitations. First, the study used convenience sampling, which may limit the generalisability of the findings to all young drivers in Malaysia. Second, the data were collected using a self-administered online questionnaire, which may be affected by response bias or respondents' willingness to provide accurate information. Third, the study focused only on three behavioural factors, namely speeding driving behaviour, driver distraction activities, and traffic rules violation. Other factors such as driving experience, peer influence, parental monitoring, enforcement perception, personality traits, and road environment were not examined in this study.

Future research should consider using probability sampling and a larger sample involving young drivers from more Malaysian states. Longitudinal studies may also be conducted to examine changes in young

drivers' behaviour over time. In addition, future studies may include other psychological, social, environmental, and enforcement-related factors to provide a more comprehensive understanding of young drivers' road safety behaviour. Further research may also evaluate the effectiveness of road safety education programmes, driver training initiatives, and public awareness campaigns in improving safe driving behaviour among young drivers.

Overall, this study contributes to the understanding of behavioural factors associated with young drivers' road safety behaviour in Malaysia. The findings highlight the importance of addressing speeding, driver distraction, and traffic rules violation as part of broader efforts to develop a safer driving culture and reduce road accident risks among young drivers.

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