

Exploring the Concept of Unsafe Antisocial Behavior among Motor Vehicle Drivers: A Qualitative Study

Farshad Faghisolouk¹, Hamid Soori², Davoud Khorasani-Zavareh^{3,4}, Sanaz Sohrabizadeh^{1,5*}

¹Department of Health in Disasters and Emergencies, School of Public Health and Safety, Shahid Beheshti University of Medical Sciences, Tehran, Iran

²Faculty of Medicine, Cyprus International University, North Cyprus

³Workplace Health Promotion Research Center (WHPRC), School of Public Health and Safety, Shahid Beheshti University of Medical Sciences, Tehran, Iran

⁴Department of Neurobiology, Care Sciences and Society (NVS), H1, Division of Family Medicine and Primary Care, Huddinge, Sweden

⁵Air Quality and Climate Change Research Center, Research Institute for Health Sciences and Environment, Shahid Beheshti University of Medical Sciences, Tehran, Iran

*Corresponding Author: Sanaz Sohrabizadeh, Email: sohrabizadeh@sbmu.ac.ir

Abstract

Background: Previous analyses have revealed that the human factor is significant in causing traffic accidents. Antisocial driving behaviors have led to a phenomenon called driving violence, which poses a significant risk to other road users. Accordingly, this study aimed to explore the concept of antisocial driving behavior and its various types.

Methods: This qualitative study was carried out using a content analysis approach and involved 12 participants selected through the purposive sampling method. In-depth semi-structured interviews were conducted from June to September 2019 in Tehran, Iran. Data were analyzed using Graneheim's approach.

Results: The study identified a total of 419 primary codes, 10 subcategories, and 5 main categories including culture, violation of laws, reduced traffic safety, reduced social welfare, and risk-taking behaviors.

Conclusion: Antisocial behaviors in driving are context-based and pose a potential risk to other road users. They often violate citizenship rights and driving laws while being related to the prevailing culture of the community. Therefore, appropriate interventions and policies should be adopted to reduce these behaviors.

Keywords: Antisocial behaviors, Drivers, Vehicles, Qualitative research

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Introduction

Road traffic injuries are one of the most important causes of death worldwide, leading to more than 54 million new disabilities and 1.2 million deaths annually (1). Road traffic injuries are the 10th leading cause of death and the 9th leading cause of the burden of disease (2). As such, traffic accidents are a major health concern that requires comprehensive cooperation and preventive interventions (3). More than 90% of crashes are caused by human errors (4). Driving vehicles in an antisocial and dangerous way has created a phenomenon called driving violence, which is a risky driving behavior (5). This type of behavior poses a potential risk to other drivers (6), and hundreds of such behaviors go unreported and do not lead to law enforcement by the police or authorities (7). Individuals who exhibit antisocial behaviors engage in harmful actions including violating laws, social norms, and the

rights of others, aggression, disturbing public order, being reckless about their safety and that of others, and failing to take responsibility (8). The concept of antisocial behavior covers a wide range and has been studied in various contexts and groups of society. However, no study has investigated this type of behavior in the context of traffic, despite evidence linking it to traffic accidents (9). Studies suggest that improving vehicle safety is only possible if it is considered a social phenomenon, and if studies focus on the beliefs and attitudes of road users to facilitate change in the future. Since driving is a social activity, its social context should also be taken into consideration (10). Therefore, this study aims to explore the concept of unsafe antisocial behavior and its various types in the field of traffic. The findings can assist policymakers in developing appropriate interventions and planning to reduce antisocial driving behaviors, which pose a danger



to the safety of road users and the community.

Methods

The present study was conducted in Tehran, the capital of Iran, one of the countries known for a high rate of mortality in traffic accidents (11). The interviews took place from June to September 2019, and the study setting included research centers related to road accidents, the Traffic Police Organization, the National Emergency Organization, and the Roads and Transportation Organization. This qualitative study used a content analysis approach to increase our understanding of the participants' experiences, views, and thoughts regarding antisocial driving behaviors. This approach was chosen because the experiences and perceptions of the participants are crucial in achieving the study objectives (12). Purposive sampling was used to select the participants as the primary sampling unit (13), and a total of 12 participants were approached for the interview. The participants included traffic experts, researchers in the fields of epidemiology, disaster and emergency health, injury prevention and safety promotion, transportation and traffic engineering, police staff, sociologists, emergency medical experts, psychologists, as well as drivers of motor vehicles. The inclusion criteria for the participants were having the ability and willingness to participate in interviews and holding a valid driver's license with at least two years of driving experience. The data were collected through in-depth and semi-structured interviews (14), seeking individuals' experiences of antisocial driving behaviors. The questions in the semi-structured interviews were adjusted based on the concepts obtained from the non-structured interviews. First, five non-structured interviews were conducted to obtain the main concept of antisocial behaviors in driving, followed by seven semi-structured interviews using probing questions for the other participants. Examples of interview questions are: "Based on your experience, what are the reasons for engaging in unsafe antisocial behavior while driving?" and "What motivates you to engage in unsafe antisocial behavior while driving?" The interviews were conducted from June to September 2019, and a total of 12 interviews were conducted with the participants. Data saturation was achieved after eleven interviews, and an additional interview was conducted to ensure no new concepts emerged. The interviews lasted from 27 to 50 minutes, with an average of 31 minutes. Content analysis using the Graneheim approach was applied to analyze the data (15). This method enhances the applicability and generalizability of the results to other similar contexts (16). Inductive coding was used to extract meaning units based on the participants' experiences and interview phrases. The meaning units were then labeled with codes, which were categorized based on the similarities and differences (17). The process of analyzing the notes was

repeated several times, with the obtained concepts being agreed upon, rejected, or reviewed (18). The objective of the study was explained to each participant before the interview, and written consent was obtained. The participants were assured that the information collected would be entirely confidential, and they could leave the study at any time. The four criteria recommended by Guba and Lincoln including credibility, transferability, confirmability, and dependability were also used in this study (19).

Results

The demographic characteristics of the 12 participants are illustrated in Table 1. The average age of the participants was 39 with a standard deviation of 43 years. Besides, 8 participants were men and the remaining 4 were women. In addition, 5 participants were drivers of motor vehicles, while the rest were traffic experts.

A total of 419 primary codes were extracted from the data and classified into 10 subcategories and 5 categories which comprised the concept of antisocial driving behaviors. The main categories included culture (deviation from norms and values), violation of laws (violation of civil rights and traffic rules), reduced traffic safety (increased mortality and traffic accidents), reduced social welfare (behaviors contrary to the public interest and decreased social security), and risk-taking behaviors (posing direct and indirect risks) as shown in Table 2.

The components of the concept of antisocial driving behaviors

Table 1. Demographic information of the participants

Demographic information	Number	Percent
Gender		
Male	8	67
Female	4	33
Age		
20-30	3	25
31-40	3	25
41-50	5	42
51-60	1	8
Participants		
Experts	7	58
Drivers	5	42
Educational status		
Diploma	1	8
Bachelor's degree	4	33
Master's degree/medical doctor	3	25
PhD/Specialist	4	34
Marital status		
Single	5	42
Married	7	58

Table 2. Categories and subcategories of antisocial driving behavior

Category	Subcategory
Culture	Deviation from norms
	Deviation from values
Reduced traffic safety	Increased mortality
	Increased traffic accidents
Risk-taking behaviors	Posing direct risks
	Posing indirect risks
Violation of laws	Violation of civil rights
	Violation of traffic rules
Reduced social welfare	Behaviors contrary to the public interest
	Decreased social security

Culture

1. Deviation from norms

Antisocial behaviors in driving are contrary to the customs, habits, and norms of the community in question. These behaviors ignore the prevailing customs of the community, are labeled as antisocial behavior, and are contrary to the beliefs accepted in the community. “Antisocial behavior is the behavior that is contrary to the customs and habits of the community and many of these behaviors are contrary to custom” (Participant 4).

2. Deviation from values

Many antisocial driving behaviors ignore the values that govern the community, according to the experiences of the participants. These behaviors are contrary to the social and common values of the community. “This behavior is not consistent with the shared collective values” (Participant 4).

Violation of laws

1. Violation of civil rights

The participants in the study emphasized that many of these behaviors violate the individual rights to life as well as citizenship rights in the community. “These behaviors result in the violation of individual rights and laws of the community” (Participant 9).

2. Violation of traffic rules

Most of the unsafe antisocial behaviors are contrary to the traffic rules and regulations of the country, according to the participants. Additionally, most of these behaviors are forbidden by traffic laws, and there are penalties for them. “Many of these behaviors are prohibited by the Traffic Act” (Participant 5).

Reduced traffic safety

1. Increased mortality

These behaviors lead to death, injury, and/or disability for drivers or other individuals and road users in the community. The occurrence of these behaviors by drivers of motor vehicles increases the number of deaths due

to traffic accidents in the country. Therefore, physical injuries caused by these behaviors are significant. “It kills people. The rate of mortality due to driving accidents is higher than war” (Participant 3).

2. Increased traffic accidents

Committing such behaviors can cause traffic accidents and create an unsafe space for other road users. These behaviors also disturb the traffic flow on the roads. Therefore, the possibility of an increase in vehicle accidents is increased. “The unsafe behaviors of some drivers even cause them to have trouble driving and increase the risk of accidents” (Participant 8).

Reduced social welfare

1. Behaviors contrary to the public interest

Unsafe antisocial behaviors while driving are contrary to the collective interest and social rationality. Those who commit these behaviors only pursue personal interests and do not consider the collective interest. When these behaviors occur, they may face objections from others. These behaviors are the result of irrational individualism in the individual who only seeks to achieve personal interests and is willing to risk the interests of others. “It is immoral individualism and not for the public interest” (Participant 10).

2. Decreased social security

These behaviors disturb and reduce the level of social security and threaten and harass drivers, passengers, pedestrians, and others involved in transportation in the community. “The behavior that affects the peace and privacy of others, often antisocial behaviors, annoy and upset others” (Participant 2).

Risk-taking behaviors

1. Direct risks

All study participants stated that all antisocial behaviors of motor vehicle drivers are unsafe and dangerous. Some of these behaviors are directly unsafe, and only the level of insecurity of these behaviors may differ. Indeed, all antisocial behaviors during driving are also unsafe. “Most antisocial behaviors while driving are somewhat unsafe. Using mobile phones while driving has become very common, but you know how dangerous it can be” (Participant 5).

2. Indirect risks

Some antisocial behaviors of motor vehicle drivers can be indirectly dangerous. “A few antisocial driving behaviors are indirectly risky. For example, throwing a garbage can distract other drivers” (Participant 11).

The concept of unsafe antisocial behaviors in driving

The concept of unsafe antisocial behaviors in driving is

defined as any behavior that is contrary to the prevailing culture of that community and causes the violation of current laws and regulations by posing risks, reducing traffic safety, and decreasing the level of social welfare.

Types of antisocial behaviors while driving

The types of antisocial behaviors related to traffic that were most important to the participants were identified and extracted (Table 3).

Discussion

In this study, the concept of unsafe antisocial behaviors of motor vehicle drivers was explored using a qualitative approach. In general, to define the concept of antisocial driving behavior, five categories were extracted, including culture, violation of laws, reduced traffic safety, reduced social welfare, and risk-taking behaviors. The cultural context of each country has a significant effect on the formation of antisocial driving behaviors. According to the study results, cultural factors are effective in explaining the concept of unsafe antisocial behaviors in driving. Antisocial behaviors in driving occur when individuals ignore the norms and values that govern their community. Therefore, driving behavior is strongly affected by driving culture (20). Antisocial behavior is defined as the behavior resulting from an individual's inability to respect the rights of others (21). These behaviors include assault, vandalism, setting fires, theft, crime, and other delinquent acts that do not conform to social norms (22). Several studies have established a connection between abnormal behaviors and dangerous driving behaviors (23-25). In line with the current study, Iversen and Rundmo (24) reported that individuals who scored higher on abnormal behavior scales were more prone to engage in unsafe driving behaviors.

Several studies have shown that social norms do not play an insufficient role in unsafe driving behaviors (26,27). However, they have been identified in some studies as an important variable affecting an individual's intention to engage in risky driving behaviors (28). Therefore, it seems that accepted norms in the community play an important role in the development and occurrence of antisocial behaviors in driving. Certain driving behaviors that are not accepted by the general public and other road users can be considered antisocial behaviors.

Another concept extracted from the study was the violation of laws. Drivers who engage in unsafe antisocial behaviors in driving are violating the laws. Driving is not done in a separate environment but in an environment shared with others. As a result, driving is a lawful social behavior (29). Proper legal regulations and the effective enforcement of these regulations are the keys to the improvement of road traffic safety (30), and law enforcement is necessary for those who intend to break the law and not change their behaviors (31). The

Table 3. Unsafe antisocial behaviors in Iranian motor vehicle drivers

No.	Type of behavior
1	Unauthorized speed
2	Eating while driving
3	Car drafting
4	Illegal overtaking
5	Playing with children
6	Blocking the path of others
7	Driving in the wrong lane
8	Having body parts outside of the car
9	Insulting
10	Unexpected traffic diversion
11	Creating tension for the front car
12	Throwing garbage
13	Installing the exhaust head with an abnormal sound
14	Excessive pressure on the accelerator pedal
15	Smoking
16	Yelling in the car
17	Harassment for women drivers
18	Studying while driving
19	Alcohol abuse
20	Transporting unauthorized cargo
21	Increase speed when overtaking a sidecar
22	High music volume
23	Unnecessary use of high-beam light
24	Driving at low speeds in the overtaking lane
25	Using mobile devices
26	Unnecessary honking

antisocial individuals not only violate the law but also lack responsibility for driving behaviors (25). Therefore, it seems that drivers who engage in antisocial driving behaviors violate driving rules. Rules and regulations can change the behaviors of drivers and thus increase safety (30).

Deliberate violation of the law is an important factor in causing traffic accidents (10). Violent driving is associated with behaviors that violate traffic rules and can lead to traffic accidents (32). Another important factor is the reduction in traffic safety. Antisocial behaviors in driving are not only due to violations of the law but also lead to traffic accidents, which increases the likelihood of injuries (33). In this regard, it can be stated that unsafe driving actions may increase the likelihood of injuries. People engaged in risky lifestyle are more predisposed to risky behaviors (including road traffic behaviors), and therefore to traffic accidents (34). The risky behavior of drivers is a threat to traffic safety (35), and such behavior can be a major factor in traffic accidents (36). Thus, antisocial behaviors in driving increase the likelihood of traffic accidents, which in turn has consequences

such as increased mortality and endangers the lives of other road users. The antisocial behaviors of drivers are all dangerous and unsafe. Some of these behaviors pose direct risks to other road users, while others indirectly reduce traffic safety. Consistent with the findings of the present study, a similar study discovered a relationship between dangerous driving and insufficient social adaptation (37). Furthermore, antisocial behavior is strongly correlated with risky driving (38). Individuals who exhibit unsafe driving behaviors often display other traits, such as antisocial behaviors, which put them at an increased risk of death and injury (39). Therefore, it appears that all antisocial behaviors in driving should be considered dangerous.

Antisocial driving behaviors reduce social welfare and security in the community. As driving violations are mostly socially undesired, these behaviors are likely to provoke negative feelings in some drivers (22).

One of the limitations of this study was that the findings cannot be generalized to other societies due to differences in antisocial behavior backgrounds and the educational status of the participants in the context of Iran.

In general, any behavior exhibited by drivers of motor vehicles that causes injuries, threats, or disturbance to other road users while reducing safety, welfare, and safe traffic in the community should be classified as antisocial driving behavior.

Conclusion

Antisocial behavior in driving is defined as any behavior that is contrary to the prevailing culture of the community and causes the violation of current laws and regulations by posing risks, reducing traffic safety, and finally decreasing the level of welfare. The results of this study can be used to make people aware that driving is not an individual phenomenon, but it is a social behavior, the results of which can affect people's social life. One of the solutions is to educate people on how they can interact with each other in society through socialization skills such as problem-solving, interpersonal relations, anger management, and control. The role of culture should be considered for the implementation of interventions and preventive measures. Moreover, stricter rules should be enacted to deal with those who commit these behaviors since they typically violate civil rights and driving laws. Further research is needed to investigate the socialization process of people in the country, identify weak points in this regard, and develop a quantitative tool to measure unsafe antisocial driving behaviors.

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Authors' Contribution

Conceptualization: Sanaz Sohrabizadeh, Farshad Faghisolouk.

Data curation: Sanaz Sohrabizadeh.

Formal analysis: Sanaz Sohrabizadeh, Davoud Khorasani-Zavareh, Farshad Faghisolouk.

Funding acquisition: Sanaz Sohrabizadeh, Hamid Soori, Davoud Khorasani-Zavareh.

Investigation: Sanaz Sohrabizadeh, Hamid Soori, Davoud Khorasani-Zavareh, Farshad Faghisolouk.

Methodology: Sanaz Sohrabizadeh, Hamid Soori, Farshad Faghisolouk.

Project administration: Sanaz Sohrabizadeh.

Resources: Sanaz Sohrabizadeh, Farshad Faghisolouk.

Software: Sanaz Sohrabizadeh, Davoud khorasani-zavareh, Farshad Faghisolouk.

Supervision: Sanaz Sohrabizadeh, Hamid Soori.

Validation: Sanaz Sohrabizadeh, Hamid Soori, Davoud Khorasani-Zavareh, Farshad Faghisolouk.

Visualization: Sanaz Sohrabizadeh, Farshad Faghisolouk.

Writing-original draft: Farshad Faghisolouk.

Competing Interests

The authors declared no conflict of interest.

Ethical Approval

The study was approved by the Ethics Committee of the School of Public Health and Safety of Shahid Beheshti University of Medical Sciences [Code: IR.SBMU.PHNS.REC.1398.018].

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