

KNOWLEDGE ATTITUDE AND PRACTICE OF TAXI DRIVERS TOWARDS
SEATBELT USE IN YEREVAN, ARMENIA

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ABSTRACT

Introduction: Globally road traffic crashes account for more than 1.3 million deaths and 50 million injuries and/or disabilities. Not using seatbelts is a major cause of mortalities. Traffic crashes are one of the leading causes of premature death in Armenia. To address this issue, fines for not wearing seatbelts were increased in April 2007; however strict enforcement of seatbelt use only began in August 2009. A significant proportion of the vehicles in Yerevan are taxis.

Methods: In the spring 2011, a qualitative research was conducted to explore the knowledge, attitude and practice of taxi drivers in Yerevan. Convenience sampling was used for 17 in depth interviews with taxi drivers, 6 interviews with police officers and 1 focus group consisting of 6 NGO personnel. Road side day-time observations were conducted in 4 locations and 63 in-taxi observations were carried out to observe seatbelt use patterns.

Results: Taxi drivers in Yerevan have limited knowledge about the seatbelt law. Road day-time observations displayed high compliance with the law, however, in-taxi observations revealed tampered seatbelts. All three groups acknowledged the importance of the seatbelt law in Armenia but taxi drivers had different opinions concerning the necessity of this law in Yerevan. According to participants' beliefs, seatbelt use had increased since August 2009 but is currently declining. Safety was reported as the primary advantage of seatbelts while discomfort, strangling, sweating and loss of customers due to dirty seatbelts were disadvantages.

Conclusion: Increase in seatbelt use is directly related to strict enforcement and increased fines. Although participants reported high rates of seatbelt use, in-taxi observations revealed significant seatbelt tampering. There is an urgent need to increase awareness on the benefits of seatbelts.

1. INTRODUCTION

In modern times when transportation has become an inevitable part of our lives, we rely heavily on road transport. On one side the use of motor vehicles has made our lives easier, comfortable and time efficient, yet on the other it has brought, the cost of human lives lost in road traffic crashes including motor vehicle crashes. According to the World Health Organization, (WHO), more than 1.3 million people die from road traffic crashes globally each year, while as many as 50 million people are left injured or disabled. Moreover it is the eleventh leading cause of mortality around the world and if current trends continue, road crashes are predicted to become the fifth leading cause of death by 2030¹. It is already the fifth leading cause of mortality in the United States^{2,3}. On May 11th, 2011, United Nations general assembly proclaimed the period of 2011-2020 as the Decade of Action for Road Safety, to reduce the forecast of the road traffic fatalities around the world⁴.

Noncompliance with seatbelts has been a major cause of mortalities^{5,6}. This situation has attracted the attention of public health specialists, governments and several NGO's around the world. Several studies have been conducted and all possible measures are being taken to reduce mortality due to unintentional injury. According to several studies, the use of seatbelts can reduce the rate of unintentional injuries from 40-65% and mortality by 43-65 % during road traffic crashes⁷⁻¹⁰. It has been proven time and again that seatbelt use is profitable for the societal system. According to a study in South Africa, an investment of 2 million Rand (7 Rand = approximately US\$1 as of 1998) in a program to increase seatbelt usage will increase seatbelt usage by 16 % and reduce fatalities and injuries by 9.5 %, which will save social cost of 13.6 million rand in the following year^{10,11}. In another study it was shown that laws that allowed the

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police officer to pull over drivers simply for not wearing seatbelts, were more efficient and reduced the injuries and mortality¹²⁻¹⁵. According to studies by Phaner and Hane, when asked why drivers do not wear seatbelts; drivers came up with several reasons ranging from difficulty, feeling of discomfort or feeling of restraint, harming the driver's image, to conveying a sense of insecurity. While according to some other respondents there might be an increase in the number of traffic crashes because the drivers might be feeling 'too secure'¹⁶⁻¹⁹. In a study done in Nanjing, China the authors studied the pattern of seatbelt use along with their attitude on wearing a seatbelt following seatbelt legislation. They concluded that the taxi drivers are a particularly resistant group which may need special strategies to achieve safe levels of seatbelt use²⁰.

In the Republic of Armenia there are more than 366, 000 vehicles 99 % of which are motorcars, trucks and buses. The majority of these are all seatbelt equipped²¹. Traffic crashes are one of the leading causes of premature death in Armenia (28 per 10000) as of 2006^{22;23}. According to data provided, for the year 2008, in Yerevan the number of car crashes comprised 41.7% of all car crashes in the Republic of Armenia. In Yerevan mortalities and injuries due to these car crashes comprised 21.3 % and 35.5 % of the total number of deaths and injuries due to car crashes in Republic of Armenia respectively²⁴. The numbers of traffic crashes are on a constant rise in Armenia and so are fatalities and road traffic injury^{25;26}. In 2001, there were 1021 road traffic crashes with 237 fatalities and 1258 injuries. These numbers increased in 2010 to 1974 crashes, 294 fatalities and 2670 injuries (Table 5)²⁷

The law regarding seatbelts has existed in the Armenian constitution for a long time but practicing it is a fairly new concept for Armenian drivers, who have been driving without

seatbelts since Soviet times²⁸. The fine on not wearing seatbelt was increased in April 2007 to 5000 AMD (approximately USD 13.50)²³. It was not until August 2009 that the rules on use of seatbelts were being strictly enforced in Armenia²⁸. In addition to the seatbelt law, National Road Safety Council of Armenia (NRSC) was created with the help of the prime minister of Armenia to review strategic targets and overall progress of Strategy and Action Plan dealing with road safety issues. This NGO, along with a few others have done a significant amount of work to ensure road safety, which also comprise the enforcement of mandatory seatbelt use in Armenia with programs like *“Think Before You Drive” – seatbelt usage to become legal requirement*^{29;30}. However, the question remains: *Is it being practiced by the people the way it should be?*

Drivers' attitude towards seatbelt use is one of the key factors in the proper implementation of this law. This has been proven by various studies in different parts of the world. According to a study done in New Orleans, US, 51 % of drivers stated that they wore seatbelts always or most of the time, 52% agreed that seatbelts should be worn, and 28% favored mandatory seatbelt use. Yet only 5.4% of drivers were actually observed wearing seatbelts. Drivers who had experienced a previous auto injury that had required a doctor's visit were 1.7 times more likely to be wearing seatbelts as those without prior injury, yet only 8% of the injured were wearing them³¹. Some other Studies on drivers' attitudes regarding seatbelts revealed inconvenience, discomfort, and doubts over the efficiency of seatbelts in protecting people sitting in vehicles during crashes as excuses for not wearing the seatbelts^{17;32;33}.

This study will focus on driver's attitude towards seatbelts, since this is in fact one of the main factors which can lead to an increase or decrease in seatbelt use, and this in turn leads to an increase or decrease in mortality and morbidity rates during traffic crashes. In a previous study it has been demonstrated that the lack of awareness of the seatbelt law and negative perceptions on seatbelt use were major factors present among the Armenian drivers³⁵. This could negatively impact the rate of compliance of seatbelt law and according to the authors once the external control or regulation diminishes the practice of not wearing seatbelts will resurface³⁵.

Taxis are one of the main modes of public transport in Armenia. There are around 128,500 cars in Yerevan as of 2009³⁴. The number of licensed taxis in Yerevan was 4850 in December 2009, but according to a report by Asian development bank individual operators were not licensed^{36;37}. Due to the same reason exact number of taxis plying for hire in Yerevan is not known but the estimates range up to 10,000³⁶. This number makes a significant proportion of road traffic in Yerevan keeping in account longer hours of driving associated with the profession. Therefore, it would be of public health significance to see how taxi drivers reacted to the enforcement of the law and what their attitude towards wearing a seatbelt is.

Moreover, this study will try to understand the perceptions of police officers and other stakeholders like NRSC, regarding the use of seatbelts. The purpose of this study is to explore various aspects of knowledge, attitude and behavior of taxi drivers, police officers and several NGOs working in this field. The research questions for this study will be:

1. What is the attitude of taxi drivers regarding the use of seatbelts in Yerevan, Armenia?

2a: What are the opinions of police officers regarding the practices of seatbelt use among taxi drivers in Yerevan?

2b: What are the beliefs of police officers about taxi driver's compliance with the seatbelt law before the strict enforcement of the law, two months after it and now?

3a: What are the opinions of NGO personnel working in Yerevan in the field of road safety regarding the practices of seatbelt use among taxi drivers in Yerevan?

3b: What are the beliefs of NGO personnel about taxi drivers' compliance with the seatbelt law before the strict enforcement of the law, two months after it and now?

2. METHODS

2.1 Setting: The study was conducted in Yerevan among taxi drivers, staff members of NGOs in the related field (NGO personnel), and police officers who work as traffic police in Yerevan.

2.2 Exclusion criteria: The exclusion criteria for all three categories of participants were as follows:

2.2.1 For taxi drivers: Those who did not know Armenian were excluded.

2.2.2 For police officers: Those who were not posted in Yerevan at the time of the study and had not served in traffic police in Yerevan.

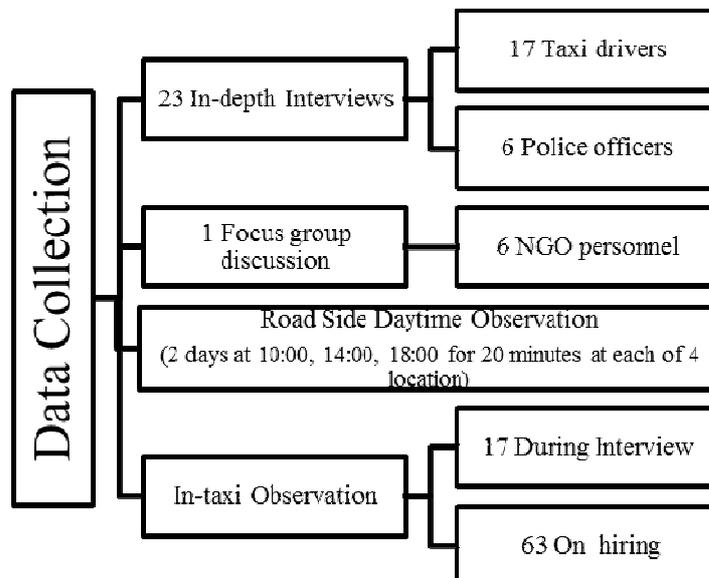
2.2.3 For NGO personnel: Those who did not work for the NGO related to the field of road safety and did not speak Armenian.

2.3 Study Design: The study incorporated qualitative methods that were suitable to access the knowledge, attitude and behavior related components. Methods used in this study were a) in depth interviews with taxi drivers and police officers, b) focus group discussion with NGO personnel and c) observations (in taxi observations during in depth interview with taxi drivers and upon hiring the taxi along with road side daytime observations). This study was conducted with the use of three semi structured interview guides tailored for taxi drivers, police officers and NGO personnel working in the related field and two observation sheets to observe the seatbelt usage among the taxi drivers in Yerevan (Appendix 1). These guides were specifically developed for this particular study. All the participants in the study were chosen by convenience sampling. Interviews were conducted until saturation was achieved in all major themes.

In-depth interviews were conducted with the taxi drivers and police officers while a focus group discussion was conducted with the NGO personnel. Given that there are very few NGO working on road safety issue in Armenia, 1 focus group discussion was considered sufficient to elicit the opinion of this group. Although a focus group discussion would have been a better choice for the police officers but due to the difficulty in recruiting police officers for interviews to conduct a focus group due to their busy schedule, 6 in- depth interviews were conducted instead.

2.4 Sources of Data: The sample size of the study was 17 taxi drivers for in-depth interview, 6 police officers for in-depth interview and 6 NGO personnel for one focus group discussion. For in taxi observation, 80 total were conducted (17 interviewed + 63 upon hiring the taxi) and during road side observation 3891 vehicles (1476 taxi along with 2415 private vehicles) were observed for usage among drivers and front seat passenger. The data was collected from March-June, 2011.

Figure 1: Sources of Data



2.5 Development of field guide: The in-depth interviews were conducted based on the interview guides structured for taxi drivers, and police officers, while a focus group discussion was conducted for different stake holders (NGO personnel). The instruments were originally developed in English, translated into Armenian, reverse translated into English to ensure the validity of the interview guides, following which they were pretested. Pretesting did not reveal any major changes needed other than usage of word and language revisions. After pretesting, the required changes were made in all the guides before use. The language of the interviews and focus group was Armenian. All notes and recordings from the interviews and focus group discussion were translated and transcribed into English.

2.6 Data Collection:

2.6.1 Interviewers: Due to language barrier, the student investigator could not conduct the interviews and translate them. Therefore, 4 interviewers (one male and three females) of Armenian ethnicity, fluent in both Armenian and English, were recruited. Interviewers were trained by the student investigator to conduct the interviews specifically for the study. In addition, the student investigator was present as an observer at all times during the interviews, focus group discussions and observations. The observer took the notes and helped with audio recording, along with observations wherever required.

2.6.2 Data Coding and analysis: The notes and the recordings were used to prepare the transcripts. These transcripts were used for further coding and theme generation. Several codes were generated during the conventional content analysis. These codes were grouped and used to generate the themes.

The main domains researched in the study were: *perception of taxi drivers regarding seatbelt use*, and *perception of other stake holders (police officers and NGO personnel) on seatbelt use by taxi drivers in Yerevan*. Subdomains of the study included knowledge and opinion about the seatbelt law, seatbelt usage, advantages-disadvantage of seatbelt usage and usefulness of seatbelt law in Armenia. In-depth interviews were named as ‘TD’ followed by numbers from 1-17 for in-depth interviews with taxi drivers, ‘PO’ followed by numbers from 1-6 for in-depth interviews with police officers and ‘FGD’ followed by number from 1-6 for focus group discussion with NGO personnel. Observation sheets were also designed for the daytime observations and in taxi observation.

2.6.3 In-depth interviews

2.6.3.1 Interviews with taxi drivers: There were 17 in-depth interviews conducted with taxi drivers. During in-depth interviews with taxi drivers, in-taxi observations were conducted so as to understand their seatbelt wearing habits. The interviewer called the taxi service or took a taxi from the street. After in-taxi observation of seatbelt condition was made, the taxi driver was asked for an interview. On receiving the oral consent of the taxi driver, the interview was conducted. Various knowledge, attitude and practice related aspects were explored during the interview. The length of the interviews varied from 12-18 minutes. These interviews were carried at different times of the day and the factors that were looked upon were seatbelt condition and its use while driving. The in-depth interviews contained a demographic questions section, which was used to obtain information such as age, sex and level of education of the participants. There after the field guide followed the domains of interest.

2.6.3.2 Interviews with Police officers: Interviews were conducted with 6 police officers in different parts of the city. The interviews took from 8-16 minutes for police officers,

2.6.3.3 Focus group discussion with NGO personnel: Focus group included six participants from different NGO's. The discussion lasted 70 minutes. The NGO personnel were contacted and asked for their availability for the focus group discussion. The focus group discussion with NGO personnel was conducted in the office of NRSC.

The in-depth interviews with taxi drivers were used to understand the perception of the taxi drivers while the focus group with the NGO personnel and in-depth interviews with the police officers were used to observe existing triangulation patterns, if any.

2.6.4 Observations

The observations were carried out with the help of observation sheets to observe the adherence to the seatbelt law (Appendix 1). In addition to the Road side daytime observation and in-taxi observations conducted during the in-depth interviews with taxi drivers, a second set of observations were made when taxis were hired from different parts of the city to different destinations. These observations, which were conducted at different times during the day, were devised to study the behavior of the taxi drivers regarding seatbelt use.

2.6.4.1 The road side daytime observations: These observations were made on two main streets and two secondary streets; one of each in the city center and one of each outside the city center. Observations were recorded for 20 minutes for three times on two different days. Total time spent during the observations was 8 hours. There were two volunteers (V1 and V2) on each

site during observation. V1 was assigned to observe the seatbelt status of driver and passengers in taxis and V2 for private vehicles passing by. Observers stood almost 10 meters after the crossroads on the footpath in a place where they can best observe the moving vehicles. Vehicles moving in the 2 right most lanes only were observed on the main street while all vehicles passing on the secondary street were observed. Since it is difficult to see inside the vehicle from the road side to check on seatbelt use when it becomes dark, road side observations were conducted during daylight hours, at the following times: 10:00, 14:00 and 18:00. To increase the reliability of the data collected the observation was conducted at all mentioned times on two different days.

2.6.4.2 In taxi observation: in addition to observing the seatbelt use during the interviews with taxi drivers, another 63 observations were made upon hiring a taxi. The seatbelt wearing pattern was observed. Observer noted the use of seatbelt and categorized as ‘wearing’ when the seatbelt was worn properly, ‘wearing but tampered’ when the seatbelt was worn but was tampered with. Those who did not wear the seatbelt were put in ‘not wearing at all’ category.

2.7 Ethical consideration: The American University of Armenia Institutional Review Board (IRB) granted Permission for the study. All collected data were free of such questions that could possibly trace back to participants of the study. Identifiable demographic information such as name, registration number of taxi, address, or phone number was not obtained. This helped to ensure the anonymity of the participants. While conducting the interviews oral consent was taken and the interviews were audio taped with the participant’s permission. The recordings of the interviews and focus group discussions were destroyed once the transcripts were prepared.

The study posed minimal risk for the participants.

3. RESULTS

The results including demographic information on taxi drivers, major themes generated with the help of in-depth interviews and focus group discussion, triangulation patterns among the groups on major themes, road side day time observation and in- taxi observation are presented in this section.

3.1 Demographics on taxi drivers

Drivers who were interviewed ranged from 21 years to 58 years in age. Average age was 45 years. Their driving hours ranged from 7 – 18 hours with an average of 11 hours per day. Out of 17 participants 8 have graduated from school, one has received specialized secondary education, one has received at least university education and 7 have received higher (more than 14 years) of education.

Table 1: Demographic variables of Taxi Drivers who were interviewed

Age (mean(range))		45 (21-58) years
Driving hours (mean(range))		11 (7-18) hours per day
Education	School	8 participants
	Specialized secondary	1 participant
	University	1 participant
	Higher (more than 14 years)	7 participants

3.2 Main Findings

The following were the main findings derived from the data collected through interviews and focus group discussions.

3.2.1 Knowledge:

3.2.1.1 Taxi drivers' knowledge about seatbelt law

Among the taxi drivers who were interviewed all the participants knew about the seatbelt law in Armenia. Most of them were aware of the advantages of wearing seatbelt. Although the law on seatbelts was present in the constitution for a long time, however, according to some participants the law came into existence only a few years ago. When asked what they know about this law there were participants who knew about the existence of the law and the enforcement of the law, while there were people who consider enforcement of the law as passing the law. A couple of participants admitted that they do not have much knowledge about the law, although all participants knew about the fine they have to pay if caught without a seatbelt.

I don't know everything... but I know 60% of it. When you have seatbelt installed in your car and you don't wear it you have to pay a fine of 5000 and if there is not seatbelt the fine is 3000 drams. (TD8)

We didn't have this law before but now it is obligatory to use the seatbelt. (TD10)

3.2.2 Attitude

3.2.2.1 Taxi drivers' opinion about the seatbelt law: There were two groups of opinions about the seatbelt law in Yerevan, 10 out of 17 participants used words like 'pointless', 'useless', 'not in the city', 'only on highways' to express how they feel about the seatbelt law depicting that according to them the seatbelt law is useless and/ or pointless in Yerevan (at places referred as city), some of them think that this law is not needed in the city and it is only good to have this law on the highways. The remaining six thought of it as being 'useful', 'habit', 'primary thing', 'for security'. This group of drivers thought that this law is useful not only on highways but in the city as well. A few agreed that wearing seatbelt is the primary thing one should do after sitting in the taxi. Almost all who had positive views about the seatbelt law connected the law with the security of the driver as well as the passenger.

This clearly reflects that a majority of taxi drivers interviewed do not think that the law on seatbelts is useful or needed within the city streets of Yerevan, but almost all of them agreed on its usefulness on highways outside of Yerevan. Participant brought the example of speed limits to justify why the law is not important. According to the majority of taxi drivers interviewed, the speed limit in the city is too low and seatbelt will not be of much help at the speed that they drive in Yerevan. Some representative quotes from participants are provided in the box below.

‘My personal opinion is that it is not right in the city. We drive with a speed of 40-60 km/h, moreover it bothers me. It put pressure on my chest.’ (TD16)

“It not a bad rule but it is not needed in the city. The speed limit in the city is 60 km/h, and we don’t drive higher than 40km/h. But it is needed on highways for sure.” (TD7)

“Seatbelt are very nice things to use but not for this small city. The speed limit in this city is 60 km/hour; tell me how can I drive more than 60 km/hour?” (TD9)

According to taxi drivers who had a positive opinion about the seatbelt law, it is an important law and wearing seatbelts is necessary, as it helps if you are involved in a traffic crash. Almost all of those respondents who had a positive opinion about the seatbelt law unanimously agreed that the law on seatbelt use is helpful. They also agreed that when involved in road traffic collisions, seatbelts help prevent injuries.

“It (seatbelt) is the right thing; it (seatbelt law) is a great law.” (TD8)

“Wearing seatbelt is a must. During the traffic crash it is needed, it holds you. Those who don’t wear seatbelts they don’t understand that seatbelts are the primary safety measure for traffic crashes.” (TD14)

3.2.2.2 Taxi drivers’ friends’ opinion about the seatbelt law: When taxi drivers were asked, ‘what do your friends think about the seatbelt law?’ their responses were more or less in favor or against the law with a few respondents being neutral and three respondents not answering it.

More than half of the participants said that their friends think like them when it comes to the seatbelt law. One of the respondents told that they have accepted it, as the law is required to follow. Another participant told that his friends think that the law is necessary. Although the responses were mixed, the majority said that, their friends were not in favor of the law in the city. The most common reason for not being in favor of the law was the slow speed at which the taxi drivers drive in the city, while those in favor mentioned safety unanimously.

“Everyone accepts it (seatbelt law), we (taxi drivers), we accept it, when the state issues a law, and we are the first one to accept it.” (TD1)

“Well, it (seatbelt law) is not right, nobody thinks it is right”. (TD3)

“(Opinion of my friends) In general (is) not positive, because if you do not use the seatbelt than you have to pay the fine.” (TD5)

3.2.2.3 Taxi drivers’ opinion about seatbelt usage: Participants mainly reported that they feel secure, safe or normal while wearing seatbelts. The majority also agreed that the use of a seatbelt does not affect their driving. Some of the participants reported discomfort, and limitation of movement. One of the participants said that it was difficult in the beginning for him to wear the seatbelt, but eventually he got used to it and it has become a habit. One participant mentioned loosening the seatbelt, in order to make it more comfortable.

“It’s great, although I ruin my clothes. But it does not affect my driving at all. (TD5)

It is safe to wear seatbelt but not comfortable. It limits my movement while driving.” (TD9)

“We have to loosen the seatbelt so it becomes more comfortable because the way it is fitted is very tight. I don’t want it to make me uncomfortable.” (TD11)

“It is already a habit (to wear seatbelt), in the beginning it was unpleasant but now I am used to it”. (TD13)

Six police officers were interviewed to investigate the seatbelt wearing habits among the taxi drivers. The results of the in-depth interviews are presented below:

3.2.2.4 Advantages and disadvantages of wearing seatbelts: Almost all participants in all groups mentioned safety as a major advantage of seatbelt use. The idea was conveyed through the use of phrases such as, ‘reducing the chances of trauma’, reduces mortality and ‘holds during traffic crash’.

“When you are driving at high speed it secures you from banging your head on the steering, it keeps your chest safe from injuries.” (TD9)

“We need it always. It has only advantages; it does not have any disadvantage. It is needed and is must to wear. An intelligent driver always wears the seatbelt. In our city the traffic crashes happen very frequently, and I use it (seatbelt) always. You do not hit your head on the steering wheel; it is protective and reduces the chances of injury.” (TD14)

“I don't see any disadvantage in wearing the seatbelt and the advantage is the safety of the driver and passenger.” (PO2)

Although police officers did not mention any disadvantage, taxi drivers and NGO personnel listed some. The disadvantages mentioned by the taxi drivers were mainly discomfort, limitation of movements while driving, choking, and sweating. The NGO personnel reported loss of customers due to dirty seatbelts and discomfort as disadvantage of using the seatbelt.

“All taxi services work 24 hours, when they are actually supposed to work only 8 and wearing a seatbelt for 24 hours holds you, pulls, intervenes.” (TD3)

“It guarantees the safety of the driver and passengers but the disadvantage is they (police officers) fine us with or without any reason.” (TD10)

“Customers complain about cleanliness of the seatbelts specially when they are wearing white shirts, and they would use another taxi where the taxi driver is not forcing the customer to use the seatbelts.” (FGD6)

A few participants mentioned that wearing a seatbelt limits the movement of the driver and it is difficult to look back while driving in reverse gear. Taxi drivers also mentioned the fear of being strangled by the rear seat passenger which was also mentioned during the focus group discussions with NGO personnel, although one of the participant police officer mentioned that no such case have ever been registered.

“The belt can be pulled from behind (by the rear seat passenger) and it will directly choke you on your throat...” (TD3)

“In the night times the taxi drivers are also afraid that seatbelts can be used as a tool to harm the driver.” (FGD6)

3.2.2.5 Age of the driver and seatbelt usage: Police officers and NGO personnel saw an association between the age of the driver and use of seatbelt. According to them the younger

drivers had a higher tendency of not wearing seatbelts when compared with middle and old aged drivers. A question addressing this issue was not included in the interview guide for the taxi drivers.

“Young people try to avoid wearing sometimes but we fine them, old drivers usually wear.”

(PO2)

“Usually people who are older wear seatbelts. They are more responsible than the younger ones. I would say it is just their age which makes them not to wear the seatbelt.” (PO6)

“I think there is strong relation older people use seatbelts more. Young drivers have a tendency of not wearing the seatbelt. They ignore the importance of wearing the seatbelt.”

(FGD1)

3.2.2.6 Usefulness of seatbelt law in Armenia: Almost all the participants from all groups agreed that this law is necessary and it is important for safety reason. NGO personnel mentioned some problems with the implementation of the law in Armenia. However the taxi drivers were distinguished and parted into two groups of thought on the necessity of seatbelt use in Yerevan. One group of participants was completely against the law being implemented or enforced in Yerevan, while the other group found it useful and important citing safety as the primary reason. Those who didn't agree with the law being enforced in Yerevan believed that the speed limit in Yerevan for auto vehicles is too low to use seatbelts. In their opinion seatbelts may cause much trouble in the form of discomfort and hindrance while driving.

“In city there are people who have to get in and out of the car a lot of times. They have to stop a lot of times. It is uncomfortable. On highways it is necessary.... We need this law in Armenia because there are some roads in Armenia like the one which goes to Sevan, or to Ararat, roads going through mountains.” (TD11)

“I don’t find it useful. I think it should be used only on highways. I have not seen a traffic crash where seatbelts have saved lives.” (TD16)

“It doesn't matter if it's Sevan-Yerevan highway or Yerevan -Armani Highway or the little streets in the city (the street that is wider) 40km/h up to 30km/h it's useful one don't have to drive at 90-100 km/h speed to see the use of the seatbelt you can see the use at 30-40 as well.” (PO2)

“Most of the taxi drivers think that in the city where the speed limit is 30-40 nothing serious can happen to them. But they don’t know that even at that speed when there is a traffic crash there is risk of serious injuries. But no one explain this things to them.” (FGD1)

3.2.3 Practice

3.2.3.1 Police officers opinion on adherence to the seatbelt law: The participant police officers were of the opinion that extent to which the law is followed is very high. According to the police officers in Armenia the number of people not wearing seatbelts is decreasing day by day.

“This law is respected and for this we organize our service with our department. There are drivers who don't obey this law and day by day we can feel the decrease in their number.”

(PO1)

“The drivers who understood the use of seatbelt they started wearing at once and the ones who didn't understand they started wearing as time passed by. Everything needs time. So the number of the drivers who wear seatbelt is increasing”. (PO4)

3.2.3.2 Reasons taxi drivers provide when caught not wearing seatbelt: Mostly the reason provided by the drivers when caught not wearing the seatbelt is that they forgot to wear or they just started the car.

“They tell us that they have just started the car, they have forgotten. Everyone has a reason. No one says, “I intentionally didn't wear seatbelt and I'm not going to.”” (PO3)

3.2.3.3 Taxi drivers not wearing seatbelt: Police officer participants reported they do not fine very often and the numbers of taxi drivers found not wearing seatbelt are very low. Those interviewed estimated that they might fine 2 to 5 taxi drivers and some days not at all. In general, it was felt to be a rare occurrence in their professional work hours.

“We fine a few drivers. Almost all of them use seatbelt now.” (PO1)

“Whenever we notice, we fine, on one day it can be 2 times, another day 5 times. Whenever we see, we stop the car. We do it”. (PO2)

“Some days we might fine as many as 3 people other days we won’t fine anyone.” (PO4)

3.2.3.4 Seatbelt adherence at nighttime according to Police officers: In general the police officers agree that the number of the defaulters can be higher during nighttime, because it is difficult to notice the seatbelts due to visibility issues.

“At night time the drivers think that it’s difficult to observe, but we do notice it and fine the drivers.” (PO3)

“During nights drivers wear seatbelt less often than they wear it during daytime. They think that we cannot see it, this is the only reason.” (PO5)

Results from the focus group with NGO personnel are presented below. The focus group had 6 members from various NGOs working in Armenia. The domain covered in this focus group is tampering of seatbelts.

3.2.3.5 NGO personnel’s opinion on seatbelt tampering among the taxi drivers: Seatbelt tampering is a common practice according to the participants and they mentioned that the proportion of taxi drivers tampering with the seatbelts can be as high 70%.

“Most of the taxi drivers are tampering with the seatbelts. Out of the 10 taxi drivers only 3 are not tampering.” (FGD1)

3.2.3.6 Seatbelt usage pre- and post- implementation of law: In all three groups the majority thought that there is an increase in seatbelt usage after the law was enforced, although taxi drivers had a mixed opinion about it. Some of the taxi drivers reasoned it to be just because of fines.

“I guess there is a difference in seatbelt wearing habits as the fine has increased.” (TD5)

“Earlier they were not wearing the seatbelts like they wear it now. The conditions now are stricter, earlier the police were not putting fine for not wearing the seatbelt but now they do.” (TD11)

“It was a little difficult for taxi drivers in the beginning. They drive for 8-10 hours a day and it was difficult for them to put the seatbelt, but that was in the beginning. Afterwards they got used to it and now they can't drive the car until they don't wear the seatbelt.”

(PO2)

Numbers are significantly high even now. More people are wearing seatbelts as compared

Where on one hand some taxi drivers thought that the increase in seatbelt usage was because people adapted to wearing seatbelts, some thought that there is no change in seatbelt wearing habits at all. The taxi drivers believed that it had changed right after the law was enforced, but then gradually people started not to comply with the law.

“There is no change in the (seatbelt wearing) habit before and after the law implementation.”

(TD8)

“The number might be high but they have dropped when compared to the time immediately after the law enforcement.” (FGD4)

3.2.4 Other findings:

Seatbelt wearing pattern among the passenger in the front seat: NGO personnel agreed that there were no regulations before the enforcement of the law and that people were not abiding to the law. A majority of taxi drivers agreed that usually the passengers in the front seat wear the seatbelt willingly by themselves, although some said that usually they have to ask the passengers. Police officers mentioned that they rarely fine front seat passenger as they do not violate seatbelt law very often.

“Almost half of them do put the seatbelt by themselves. I tell the rest of them who do not wear it by themselves, if they don’t agree I tell them about the fine and then they wear it. I tell them if you won’t wear the seatbelt I won’t drive.” (TD11)

“Before the implementation only the people and staff working in foreign organizations and embassies were using the seatbelts.” (FGD1)

3.2.3.8 Seatbelt law enforcement by police officers: According to police officers the law enforcement is ensured by the fine of 5000 dram.

“There are a small proportion of the taxi drivers that don’t use seatbelt; people who are fined once put the seatbelt the next time for sure. I think that paying 5000 AMD every time is not easy for anyone.” (PO1)

“We are fining the ones who don’t wear the seatbelt for 5000AMD.” (PO3)

“If they are not wearing seatbelt we stop them and fine them. They have to pay 5000 Drams.” (PO 6)

3.3 Direct observation of taxi drivers

3.3.1 In taxi observation: Seatbelt usage during the 17 interviews conducted was observed, in addition to 63 in taxi observations upon hiring a taxi in Yerevan. Out of 17 taxi drivers interviewed, eight had tampered with their seatbelts, whereas out of those 63 who were not interviewed, 32 had tampered with their seatbelts, while two of them did not wear it at all. Taxi drivers tampered seatbelt in several ways, some of them used a clip or pin near the top seatbelt anchor to hold it in place, put a coin in the seatbelt adjuster above the shoulder to lock the seatbelt movement, broke the buckle, while a few installed a non-retractable seatbelt. Almost all those who tampered with their seatbelt did it in order to loosen it up. Tampering with seatbelt diminishes its effectiveness for safety.

Table 2: Result of In Taxi Seatbelt Observations

Seatbelt status	During interview	On hiring	Total
Normal/ wearing	9	29	38 (47.5%)
Wearing but tampered	8	32	40 (50%)
Not wearing at all	0	2	2 (2.5%)
Total	17	63	80

Overall, only 47.5% of taxi drivers who were observed during in taxi observation were found wearing their seatbelt correctly.

3.3.2 Road side daytime observation: The road side observation was conducted in the city center on Mashtots street near the Mashtots-Sayat Nova crossroad. This served as the main street, while

Vardanants street, near the Vardanants-Abovyan crossroad served as a secondary street. The streets out of city center that were chosen were Erebuni Street, near the Erebuni- Sofia crossroad, and the 27th street, near the 27th-30th crossroad. a total of 1476 taxi observations were made with 421 passengers on the front seat (Table 3) and 2415 private vehicles were observed with 1207 passengers on the front seat (Table 4). This method of observation only noted the visual evidence of a seatbelt and does not indicate whether the belt was on properly or as tampered with. Due to tinted glass of some cars no observation was made.

Table 3: Results of Road Side Daytime Observation for Taxis

Location	Total	Taxi driver			Front seat passenger	
		Wearing seatbelt (%)	Not wearing seatbelt (%)	Tinted Glass (%)	Wearing seatbelt (%)	Not Wearing seatbelt (%)
Mashtots	478	82.6	16.3	1	33.32	66.67
Erebuni Street	569	83.65	12.65	3.7	35.56	64.4
27th Street	157	82.1	21.7	0	40.6	59.4
Vardanants Street	272	85	12.8	2.2	56.1	43.9
Total	1476	83.4	14.43	2.2	39.4	60.6

Table 4: Results of Road Side Daytime Observation for Private vehicle

Location	Total observations	Private vehicle driver			Front seat passenger	
		Wearing seatbelt (%)	Not wearing seatbelt (%)	Tinted Glass (%)	Wearing seatbelt (%)	Not wearing seatbelt (%)
Mashtots	870	55	34	11	43.5	46.5
Erebuni Street	794	73	17.4	9.6	65	35
27th Street	315	58.4	35	6.6	53.6	46.4
Vardanants Street	436	57.1	33.3	9.6	53	47
Total	2415	61.8	28.5	9.7	54	46

Overall, the combined seatbelt use as observed from on daytime road side observation among taxi drivers was 83.4%, which was comparatively higher than the 61.8% observed among private vehicle drivers. The passengers in taxis were observed wearing seatbelts only 39.4% of the time, while those in private vehicle wore it 54% of the time.

4. DISCUSSION

This study helps us to explore different aspects of knowledge, attitude and behavior of taxi drivers regarding the seatbelt use in Yerevan. The study explores how much taxi drivers know about the seatbelt law and seatbelt use, what is the general attitude of taxi drivers regarding seatbelts and if they wear the seatbelt while driving. The research tried to understand the practices in more detail with the help of police officers and NGO personnel by exploring their point of view on current practices and changes in seatbelt use among taxi drivers along with the possible reason behind their actions.

In Yerevan, the knowledge of taxi drivers regarding the seatbelt law is limited. Some of the participants mentioned that this law has existed for no more than two years, whereas others said that the law was only enforced two years ago. This may be due to lack of compliance with the law which existed before the stricter enforcement of the seatbelt law beginning in 2009.

People's attitude is a major driving force that decides their future behavior³⁸. If taxi drivers perceive that seatbelts have more disadvantages as compared to advantages it is highly probable that a shift might be observed in future regarding the seatbelt usage.

There are clearly two schools of thought about the seatbelt law in Armenia. On one hand, some taxi drivers favor the law and think that it is useful in Armenia, while on the other, a group of taxi drivers are against the existence of this law in Yerevan. According to the latter, this law should be limited to highways only. They cite the slow speed of traffic (30-40 km/hour) in Yerevan city as the reason. They argue that the speed limit in the city is low (60 km/hour) and the speed of traffic is even much slower. Taxi drivers mentioned that their friends also have the

same opinion as they have, which in the majority of cases is that there is no need for the seatbelt law in Yerevan. These opinions are not based on fact, as the data shows clearly that traffic crashes and the resultant mortality and morbidity are proportionately higher in Yerevan than in the rest of the country. Perhaps this knowledge is better disseminated to the police officers and the NGO personnel working on road safety issues. This is reflected in the interviews in these two groups, Police officers and NGO staff, argue that seatbelts are needed equally in the city and in Armenia on a whole. The main reason behind this opinion is the perception of risk. Taxi drivers in Yerevan do not think that seatbelts would help much if an accident occurs at a speed under 60 km/h. This particular attitude is a threat to the future usage.

The taxi drivers were well aware of the advantages of seatbelts but they also mentioned several disadvantages. Among those mentioned were: discomfort, sweating and limiting the movement of the driver while driving. These findings were consistent with the literature. Drivers also mentioned the fear that customers can strangle them using the seatbelt, which was also reflected in the focus group discussion. Although the police officers claimed no such case has been reported in Armenia as yet, NGO staff mentioned this same fear (using the belt to strangle the taxi driver) in their focus group discussion

Almost all taxi drivers agreed that wearing a seatbelt provides safety but in response to a question directed towards reasons of wearing seatbelt majority agreed that people started wearing seatbelt mainly due to increased fine and strict enforcement of law. Safety was not mentioned as a reason for increasing in number of seatbelt use.

Actual seatbelt usage was observed by the means of observations conducted inside the taxi during the interview and/or upon hiring a taxi, and by the method of road side daytime observation. Interviewers also asked participants about the compliance with the seatbelt law. Most of them agreed that the compliance with the law has increased in the last couple of years, but some of them also mentioned that this trend is changing now. All of the taxi drivers, police officers and NGO personnel agreed that the seatbelt wearing rates were much higher after the first two months of the enforcement of the law, when compared to the seatbelt wearing rate at the time of interview. They also mentioned that age is a factor that affects the seatbelt usage. Being younger was reported to be related to low seatbelt use.

During in-taxi observation, the number of taxi drivers who were not wearing seatbelts at all was extremely low (2.5 %). However 50% of the taxi drivers observed with seatbelts on had tampered with them, therefore only 47.5 % of taxi drivers observed were correctly wearing their seatbelts. Though these numbers are not statistically generalizable due to the convenience sample of the study, nonetheless the significant quantity of tampering seen is cause for alarm. Seatbelt tampering defeats the purpose of this law and it is a matter of concern that should be dealt with as soon as possible.

Road side day time observation revealed that the number of people wearing seatbelts in the city center and outside the city center were almost the same (around 83%). The use of seatbelts during road side observation was found to be highest among the taxi drivers, followed by the drivers in personal cars, front seat passengers in personal cars and front seat passengers in taxis respectively. However, road side daytime observations could not take into account the

percentage of seatbelt tampering and therefore, this method of observation has limited validity as compared to the method of direct in taxi observation as mentioned above.

The Police officers and NGO personnel reported that they have noticed a significant change in the seatbelt wearing habits among the taxi drivers from before the 2009 enforcement of the law and after. They agreed that the rates of seatbelt use increased right after the enforcement of the seatbelt law, but are now declining. According to police officers the compliance with the seatbelt law is still very high. The changes are positive and people are getting accustomed to seatbelts.

4.1 Strengths: Qualitative methods, which were used for this study, were the most appropriate to investigate the knowledge, attitude and behavior of taxi drivers. This study incorporates qualitative assessment with road side and in-taxi observations which provides us with a good description of actual seatbelt usage rates. In addition to interviews with taxi drivers, interviews conducted with the police officers and NGO personnel helped in triangulating the results of the study. The findings of the study were consistent with the literature. The mixed use of interviews and observation was strength of study.

4.2 Limitations to the study: The study was conducted in Yerevan only, and the seatbelt wearing pattern can be different among the people living in different regions of Armenia. Four interviewers were recruited due to the language barrier of the student researcher; this could have introduced reliability error. In order to reduce this bias, all the interviewers were specifically trained for this study to conduct the interviews. Moreover, the student observer was present during all interviews and observation throughout the study.

Due to the difficulty in recruiting police officers for interviews, a focus group was not possible, and instead, 6 in-depth interviews were conducted. The roads chosen for daytime road side observation were picked by convenience. It is possible that the same vehicle was observed more than one time. It was not possible to control this bias as it was difficult to identify the vehicle. However, the chances of observing the same vehicle more than once are unlikely, because of the short observation time. The observation results for taxi drivers seems to be highly generalizable for Yerevan city, as the seatbelt wearing rates are extremely similar among the taxi drivers in the city center as well as outside the city center. However the results of the study cannot be generalized for the rest of Armenia. The finding of seatbelt tampering was not originally anticipated in original study design but rather was discovered during in- taxi observations. Therefore, the measure of road side daytime observation is less valid a measure than was planned. The discovery of tampering with seatbelts during in-taxi observations is strength and a significant finding.

Another limitation is that this study did not include private vehicle drivers as the focus was only on taxi drivers.

5. CONCLUSIONS AND RECOMMENDATIONS

In 2009, the seatbelt law was strictly enforced in Yerevan. The fine was increased to 5000 AMD. The increase in seatbelt use is directly related to the strict enforcement and increased fines. This study was implemented to understand knowledge, attitude and practice of taxi drivers regarding the seatbelt law. Many participants in the study suggest that seatbelt usage is in decline. This perception may be due to the time lapse. Though the Police officers, NGO's and taxi drivers report that seatbelt use is high, in taxi observations found significant seatbelt tampering. This issue of seatbelt tampering needs immediate attention. Based on the results of the study, it is recommended to increase promotion efforts to further seatbelt usage through mass media and/ or focusing on the issue of tampering and guiding police to enforce correct seatbelt usage. Though there is a near universal agreement that seatbelt usage is necessary on highways there was more division in drivers' attitude towards seatbelt use during city driving. There is an urgent need to increase awareness of seatbelt use and benefits of complying with this law. Promotion campaigns should address this issue by explaining about safety and decrease in morbidity and mortality by using seatbelt even during lower driving speeds. Road safety awareness workshops should be conducted and local media should be used for spreading the message. Further studies may be helpful to understand the underlying factors of compliance or non-compliance to the seatbelt law not only in Yerevan but throughout Armenia which is not limited to only taxi drivers but private vehicle owners and other commercial drivers as well.

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APPENDIX 1

INTERVIEW GUIDE FOR TAXI DRIVERS

1. Please tell me what an average day of work is like for you.
2. Can you tell me about the different steps that you do from the time you open the car door until the time you put the car in gear and drive?
3. What is your opinion about the seatbelt law?
4. Why do you think the seatbelt law was passed?
5. What do your friends think about this law and why?
6. What are advantages / disadvantages of wearing seatbelts?
7. How do you find wearing a seatbelt?
8. How does the use of seatbelt influence your driving?
9. In your opinion are there any differences in seatbelt wearing habits, pre and post implementation of the seatbelt law?
10. How has the seatbelt law affected the attitude of drivers towards seatbelt use?
11. How useful is the seatbelt law in Armenia and why?
12. Do passengers in the front seat usually put the seatbelts on themselves or do you have to instruct them?
13. How often would you say on a scale of 1-10 do they wear the seatbelt themselves?
14. Were you ever injured in a traffic crash? Did/Would wearing a seatbelt help
15. Is there anything else that you think is important for us to know about this issue?

ՀԱՐՑԱԶՐՈՒՅՑԻՈՒՂԵՑՈՒՅՑ – ՏԱՔՍՈՒՎԱՐՈՐԴՆԵՐ

1. Պատմեք, ինդրեմ, Ձեր սովորական աշխատանքային օրվա մասին:
2. Ասացեք, ինդրեմ, թե ինչ գործողություններ եք կատարում մեքենայի դուռը բացելուց մինչև վարելը ընկած ժամանակահատվածում:
3. Ի՞նչ կարծիքի եք ամրագոտիների վերաբերյալ օրենքի մասին:
4. Ձեր կարծիքով ինչու՞ ընդունվեց ամրագոտիների մասին օրենքը:
5. Այս օրենքի վերաբերյալ ի՞նչ կարծիք ունեն Ձեր ընկերները և ինչու՞:
6. Որո՞նք են ամրագոտիօգտագործելու դրական և բացասական կողմերը:
7. Ինչպե՞ս եք դուք ձեզ զգում ամրագոտով:
8. Ինչպե՞ս է ամրագոտու օգտագործումը անդրադառնում Ձեր վարելու վրա:
9. Ձեր կարծիքով կա՞ն, արդյոք, ամրագոտիօգտագործելու սովորության հետ կապված տարբերություններ՝ օրենքի ընդունումից առաջ և հետո:
10. Ամրագոտիների վերաբերյալ օրենքը ինչպե՞ս է անդրադարձել վարորդների՝ ամրագոտիօգտագործելու վերաբերմունքի վրա:
11. Որքանո՞վ է օգտակար Հայաստանում ամրագոտիների օրենքը ինչու՞:
12. Մովորաբար առջևիաթոռի նստողի աճախորդները ինքնուրու՞յն են ամրացնում գոտիները, թե՞ դուք քննարան ցայդպես թելադրում:
13. Ի՞նչ հաճախականությամբ են նրանք ինքնուրույն ամրացնում գոտիները (1-10 սանդղակով):
14. Երբ են թարկվել՞ էք ավտոճանապարհային վթարի:
Ամրագոտու օգտագործումը որն է ձևավորնե՞ց (կամ կօգնե՞ր) Ձեզ:
15. Կա՞, արդյոք, այս խնդրի վերաբերյալ որևէ այլ բան, որը կարծում եք կարևոր է, որմենքի մասնանք:

INTERVIEW GUIDE FOR NGO PERSONNEL.

1. What kind of work does your NGO do?
2. How involved your NGOs are in working with taxi drivers?
3. What are the projects or work you have done in the fields of seatbelts use?
4. What is the difference between the seatbelt wearing practice before the enforcement of the law and just after it (in next 2 months) among the taxi drivers in Yerevan?
5. What is the difference between the seatbelt wearing practice just after the enforcement of the law and now of taxi drivers in Yerevan, Armenia?
6. According to you, was the intervention in the form of strict enforcement of the seatbelt law successful in context of taxi drivers in Yerevan?
7. Please justify your answer?
8. Do you find any change in habit of the taxi drivers regarding seatbelt tampering?
9. Do you think there is relation between the age of the driver and the seatbelt use? If any what?
10. What are advantages / disadvantages of wearing seatbelts?
11. Do you think that the law on seatbelt use is suitable for Armenia? Why?
12. Is there anything else that you think is important for us to know about this issue?

ՀԱՐՑԱԶՐՈՒՅՑԻՈՒՂԵՑՈՒՅՑ – ՀԱՍԱՐԱԿԱԿԱՆԿԱԶՄԱԿԵՐՊՈՒԹՅՈՒՆՆԵՐ

1. Ի՞նչ գործունեություն է իրականացնում Ձեր ՀԿ-ն:
2. Ձեր ՀԿ-ն որքա՞ն սերտորեն է համագործակցում տաքսուվարորդների հետ:
3. Ամրագոտիների օգտագործման լրորտում ինչպիսի՞ աշխատանքներ են ծրագրել ընթիրականացրել:
4. Երևանում տաքսիվարորդների՝ ամրագոտի օգտագործելու սովորության հետևյալ վաճառիչների տարբերություններ կային օրենքի կիրառումից առաջ և անմիջապես հետո (հաջորդելու ամիսներ ընթացքում):
5. Երևանում տաքսիվարորդների՝ ամրագոտի օգտագործելու սովորության հետևյալ վաճառիչների տարբերություններ կային օրենքի կիրառումից անմիջապես հետո և ներկայումս:
6. Ձեր կարծիքով որքան օ՞վերարդյունավետ էր և անում, տաքսիվարորդների շրջանակում ամրագոտիների օգտագործման խիստ միջոցների կիրառումը: Խնդրում ենք իմնավորել Ձեր պատասխանը:
7. Արդյո՞ք նկատել էք որևէ փոփոխություն տաքսուվարորդների՝ ամրագոտիները կեղծիքով չամրացնելու սովորության մեջ:
8. Ձեր կարծիքով գոյություն ունի՞, արդյոք, որևէ կապվարորդի տարիքի և ամրագոտու օգտագործման միջև: Եթե այո, ապա ի՞նչ:
9. Որո՞նք են ամրագոտի օգտագործելու դրական և բացասական կողմերը:
10. Ձեր կարծիքով ամրագոտիների վերաբերյալ օրենքը Հայաստանին համապատասխան օ՞ւմ է: Ինչու՞ :
11. Կա՞, արդյոք, այս խնդրի վերաբերյալ որևէ այլ բան, որը կարծում եք՝ մենք պետք է իմանանք:

INTERVIEW GUIDE FOR POLICE OFFICERS

1. Can you tell me about the seatbelt law in Armenia?
2. To what extent is it followed?
3. How do you enforce the seatbelt law?
4. What is the difference between the seatbelt wearing practice before the enforcement of the law and just after it (in next 2 months) among the taxi drivers in Yerevan?
5. What is the difference between the seatbelt wearing practice just after the enforcement of the law and now of taxi drivers in Yerevan, Armenia?
6. What are the reasons the taxi drivers provide when they are found defaulter?
7. How often do you fine taxi drivers who are involved in seatbelt tampering?
8. Is there any relation between the age of the driver and the seatbelt use?
 - a. If any what?
9. What are advantages / disadvantages of wearing seatbelts?
10. How often do you fine taxi drivers because the person in the front seat is not wearing the seatbelt?
11. Have you noticed a difference in daytime seatbelt usage as compared to night time seatbelt usage?
 - a. If yes why do you think the difference exist?
12. According to you are the seatbelts useful?
13. Do you think the law in the seatbelt is suitable for Armenia? Why?
14. What do you think is the role of the police officer in increasing compliance with the seatbelt law? How can that role be strengthened?
15. Is there anything else that you think is important for us to know about this issue?

ՀԱՐՑԱԶՐՈՒՅՑԻՈՒՂԵՑՈՒՅՑ - ՃԱՆԱՊԱՐՀԱՅԻՆՈՍՏԻԿԱՆՈՒԹՅՈՒՆ

1. Ի՞նչ կասեք ամրագրոտիներին մասին ՀՀ օրենսդրության վերաբերյալ:
2. Որքան օ՞վ է այդ օրենքը հարգվում:
3. Ինչպե՞ս եք գործադրում ամրագրոտիների օգտագործման վերաբերյալ օրենքը:
4. Երևանում տաքսի վարորդների՝ ամրագրոտի օգտագործելու սովորության հետևյալ վաճինչպիսի՞ տարբերություններ կային օրենքի կիրառումից առաջ և անմիջապես հետո (հաջորդելու ամիսների ընթացքում):
5. Երևանում տաքսի վարորդների՝ ամրագրոտի օգտագործելու սովորության հետևյալ վաճինչպիսի՞ տարբերություններ կային օրենքի կիրառումից անմիջապես հետո և ներկայումս:
6. Այս օրենքը իսխ տա՞ծ տաքսու վարորդները Ձեզի՞նչ պատճառաբանություններ են տալիս:
7. Որքա՞ն հաճախ եք տուգանում ամրագրոտի կապելու պահանջը կեղծիքով իսխ տա՞ծ տաքսու վարորդների:
8. Գոյություն ունի՞, արդյոք, որևէ կապ վարորդի տարիքի և ամրագրոտի օգտագործման միջև: Եթե այո, ապա ի՞նչ:
9. Որո՞նք են ամրագրոտի օգտագործելու դրական և բացասական կողմերը:
10. Ինչքա՞ն հաճախ եք տուգանում տաքսու վարորդների՝ առջևիաթոռին ստած հաճախորդի ամրագրոտիչ ամրացնելու պատճառով:
11. Նկատե՞լ էք, արդյոք, ամրագրոտի օգտագործման հետևյալ վաճ տարբերություններ՝ ցերեկային և գիշերային ժամերին: Եթե այո, ապա Ձեր կարծիքով այդ տարբերությունն ինչի՞ հետևանք է:
12. Ձեր կարծիքով որքա՞ն օգտակար են ամրագրոտիները:
13. Ձեր կարծիքով ամրագրոտիներին մասին օրենքը Հայաստանին համապատասխան ւ՞մ է: Ինչու՞:
14. Ձեր կարծիքով ամրագրոտիներին մասին օրենքի կիրառման գործում ո՞րն է նուստիկան իդերը: Ինչպե՞ս կարելի է ամրապնդել այդ դերը:
15. Կա՞, արդյոք, այսին դրի վերաբերյալ որևէ այլ բան, որը կարծում եք՝ մենք պետք է մանանք:

IN TAXI OBSERVATION AND DEMOGRAPHIC SHEET (To be filled by observer)

Type of vehicle (observation)

Condition of seatbelt (observation)

Age -----

Male Female

Sex (Please mark the appropriate box with an "X") -----

Education (Please mark the appropriate box with an "X")

School	Specialized secondary	University (14 years)	Higher (14 + years)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How many years have you been driving?

How many hours per day do you drive?

Do you drive during the daytime or at night? (Please mark the appropriate box with an "X")

Daytime	Nighttime
<input type="checkbox"/>	<input type="checkbox"/>

ROAD SIDE DAYTIME OBSERVATION SHEET (To be filled by observer)

OBSERVATION NUMBER	TAXI SEATBELT STATUS		PRIVATE VEHICLE: SEATBELT STATUS	
	Driver	Front seat	Driver	Front seat
1.	Yes/ No	Yes/ No/ NA	Yes/ No	Yes/ No/ NA

ՏԱՔՄԻՆԵՐԻ ԴԻՏԱՐԿՈՒՄ ԵՎ ԱՆՀԱՏԱԿԱՆ ԹԵՐԹԻԿ (Լրացնելու է դիտարկողը)

Ավտոմեքենայիտեսակը

Ամրագոտուվիճակը

Տարիք -----

Արական

Իգական

Սեռը (Խնդրում ենք “X”-ով նշեք համապատասխան վանդակը) -----

Կրթությունը (Խնդրում ենք “X”-ով նշեք համապատասխան վանդակը)

Միջնակարգ Ուսումնարան

Թերիբարձրագույն (14 տարի) Բարձրագույն (14+ տարի)

Եթե հաճախել եք ուսումնարան կամ բարձրագույն ուսումնական հաստատություն,

ապանշեք ձեր մասնագիտությունը

Քանի՞ տարի է մեքենա երվարում:

Օրեկան քանի՞ ժամ երվարում:

Ցերեկայի նժամերի ներվարում, թե՞ գիշերները: (Խնդրում ենք “X”-

ով նշեք համապատասխան վանդակը)

Ցերեկ

Գիշեր

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ՃԱՆԱՊԱՐՀԱՑԻՆ ԴԻՏԱՐԿՄԱՆ ՑԵՐԵԿԱՑԻՆ ԹԵՐԹԻԿ

ԴԻՏԱՐԿՄԱՆ ՀԱՄԱՐ	ՏԱՔՄԻ. ԱՄՐԱԳՈՏՈՒՕԳՏԱԳՈՐԾՈՒ Մ		ԱՆՁՆԱԿԱՆ ԱՎՏՈՄԵՔԵՆԱ. ԱՄՐԱԳՈՏՈՒՕԳՏԱԳՈՐԾՈՒ Մ	
	Վարորդ	Առջևի հաճախորդ	Վարորդ	Առջևի հաճախորդ
1.	Այն/ Ոչ	Այն/ Ոչ/ Ոչ	Այն/ Ոչ	Այն/ Ոչ/ Ոչ

ՏԱՔՄԻՆԵՐԻ ԴԻՏԱՐԿՈՒՄ ԵՎ ԱՆՀԱՏԱԿԱՆԹԵՐ ԹԻՎ (Լրացնելու է հետաքրքիր)

Ավտոմեքենայի տեսակը

Ամրագրում փճակը

Տարիք -----

Արական

Իգական

Սեռը (Խնդրում ենք “X”-ով նշեք համապատասխան վանդակը) -----

Կրթությունը (Խնդրում ենք “X”-ով նշեք համապատասխան վանդակը)

Միջնակարգ Ուսումնարան

Թերիբարձրագույն (14 տարի) Բարձրագույն (14+ տարի)

Եթե հաճախել եք ուսումնարան կամ բարձրագույն ուսումնական հաստատություն,

ապանշեք ձեր մասնագիտությունը

Քանի՞ տարի է մեքենա երվարում:

Օրեկան քանի՞ ժամ երվարում:

Ցերեկայի նժամերի ներվարում, թե՞ գիշերները: (Խնդրում ենք “X”-

ով նշեք համապատասխան վանդակը)

Ցերեկ

Գիշեր

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ՃԱՆԱՊԱՐՀԱՑԻՆ ԴԻՏԱՐԿՄԱՆ ՑԵՐԵԿԱՑԻՆ ԹԵՐԹԻԿ

ԴԻՏԱՐԿՄԱՆ ՀԱՄԱՐ	ՏԱՔՄԻ. ԱՄՐԱԳՈՏՈՒՕԳՏԱԳՈՐԾՈՒ Մ		ԱՆՁՆԱԿԱՆԱՎՏՈՄԵՔԵՆԱ. ԱՄՐԱԳՈՏՈՒՕԳՏԱԳՈՐԾՈՒ Մ	
	Վարորդ	Առջևի հաճախորդ	Վարորդ	Առջևի հաճախորդ
1.	Այն/ Ոչ	Այն/ Ոչ/ Ոչ	Այն/ Ոչ	Այն/ Ոչ/ Ոչ

APPENDIX 2

Table 5: Demographic variables of Taxi Drivers who were interviewed

Age (mean(range))		45 (21-58) years
Driving hours (mean(range))		11 (7-18) hours per day
Education	School	8 participants
	Specialized secondary	1 participant
	University	1 participant
	Higher (more than 14 years)	7 participants

Table 6: Result of In Taxi Seatbelt Observations

Seatbelt status	During interview	On hiring	Total
Normal/ wearing	9	29	38 (47.5%)
Wearing but tampered	8	32	40 (50%)
Not wearing at all	0	2	2 (2.5%)
Total	17	63	80

Table 7: Results of Road Side Daytime Observation for Taxis

Location	Total	Taxi driver			Front seat passenger	
		Wearing seatbelt (%)	Not wearing seatbelt (%)	Tinted Glass (%)	Wearing seatbelt (%)	Not Wearing seatbelt (%)
Mashtots	478	82.6	16.3	1	33.32	66.67
Erebuni Street	569	83.65	12.65	3.7	35.56	64.4
27th Street	157	82.1	21.7	0	40.6	59.4
Vardanants Street	272	85	12.8	2.2	56.1	43.9
Total	1476	83.4	14.43	2.2	39.4	60.6

Table 8: Results of Road Side Daytime Observation for Private vehicle

Location	Total observations	Private vehicle driver			Front seat passenger	
		Wearing seatbelt (%)	Not wearing seatbelt (%)	Tinted Glass (%)	Wearing seatbelt (%)	Not wearing seatbelt (%)
Mashtots	870	55	34	11	43.5	46.5
Erebuni Street	794	73	17.4	9.6	65	35
27th Street	315	58.4	35	6.6	53.6	46.4
Vardanants Street	436	57.1	33.3	9.6	53	47
Total	2415	61.8	28.5	9.7	54	46

Table 9: Traffic crashes in Armenia (Source: Police data)

Year	Traffic Crashes	Fatalities	Injuries
2001	1021	237	1258
2005	1312	310	1773
2010	1974	294	2670