A Survey of Interurban Taxi Drivers'driving Behaviors across Kermanshah, Iran, in 2015

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Abstract

Introduction: Car accidents in developing countries are one of the major causes of mortality and injuries. Human errors are the most important causes of traffic accidents. The skill of safe driving a taxi was an important part of job behaviors for drivers of public transport.The aim of this study was to determine the factors affecting driving errors in Taxi Drivers'driving Behaviors across Kermanshah 2015.

Methods: The descriptive cross-sectional study was performed in 2015. Data were collected from the cluster random sampling that was employed, and in the final volume of sample population 226 subjects were selected.The samples consisted of all interurban taxi drivers with a driving license and at least one year of driving experience. Data were collected using two questionnaires, a researcher-made questionnaire and the Manchester Driving Behavior Questionnaire. The validity of the first questionnaire was confirmed by the experts' opinions while the second questionnaire was validated in previous studies. The qualitative and quantitative analysis of data was conducted using the SPSS Statistics Software Version 20.0.

Findings: The reliability of the Manchester driving behavior questionnaire measured 0.92. Exploratory Factor Analysis showed differences between slips, lapses, deliberate violation and unintentional violation clearly. Internal consistency were unintentional violation 0.42, deliberate violation 0.85, lapses 0.77 and slips 0.88. The most dangerous driving behavior related to slips and deliberate violation.

Conclusion: The findings of this study show psychometric properties of dangerous driving behavior in deliberate violation and slips in Kermanshah taxi drivers. it is suggested that driving teaching workshops and safety driving education are initiated for Kermanshahs' taxi drivers.

Key words: Manchester Questionnaire, Driving behavior, taxi driver.

Introduction

Car accidents and their consequences, especially in developing countries, are seen as one of the major causes of mortality and injuries. In addition to economic losses, car accidents pose serious loss of life in Iran (1). It is estimated that roughly two million people lose their lives as a result of car accidents in the world annually (2). The estimated number of driving casualties is over 15 million people per year (3), and Iran is no exception, but what distinguishes Iran from other countries is the growing trend of car accidents compared to other countries. In most countries, the growth trends of the accident index have been either negative or sluggish from 1990 to 1993. For instance, this trend has measured 18% in France, 16% in England, 7% in Denmark, 2% in Pakistan, and 1.2% in India, while the very same index measured 55% in Iran between 1994 and 1996 (4). In other words, the mortality rate resulting from car accidents was 29 deaths per 10,000, while the very same index indicated 1-2.5 people for developed countries and 3-15 persons for developing ones (4).

In Iran, 64 people are killed in car accidents every day, and 1967 injured people are hospitalized, of which 640 people are disabled in car accidents. Every day, the incomes of 450 families are severely decreased, and with the assumption of the existence of four people in each family, about 1,300 people are severely affected by the financial pressures of death or disability in the family. Every year, 23,300 are killed and 718,000 are injured in car accidents, of which 200,000 victims are disabled. In other words, a total of 753,000 Iranians (equivalent to one percent of the whole population of Iran) are killed or injured. The estimated costs of accidents outside cities alone have been 10 times higher than the budget allocated to the construction and maintenance of roads. If the effects of human factors are controlled, accidents and driving violations will probably be reduced (5).

Driving violations have always been one of the leading causes of traffic problems and accidents in all societies, and their rates and types are different depending on the cultural, socioeconomic and geographical contexts of societies. Notwithstanding the environmental, controlling and executive factors as well as the disproportion of road structures to the number of vehicles and traffic units and other factors contributing to driving violations, the human factors, as the leading cause, constitute the highest percentage of violations. One of the major duties of health researchers is to conduct research into the related issues with the aim of having a more accurate classification and understanding of human factors that play prominent roles in road accidents. It is noteworthy that all human factors involved in driving accidents are not covered by rectifying human errors by any means. In fact, it's important to distinguish between errors and violations (6).

Errors are interpreted as one's inability or failure to make sound judgments or to perform a series of designed actions to achieve the intended results (7). Violations are those behaviors that endanger the driving safety, for example, excessive speed or driving without observing the safe following distance from other vehicles ahead (8). According to consensus, errors are categorized into two distinct types. The first type is about errors that are caused by problems in attention, memory and information processing, which include two major categories: lapse and slip. The first type refers to errors that are caused by the wrongly adopted approaches to achieve a goal without awareness of one's wrong choice. Violations fall into two major categories: unintentional violations (e.g., driving too slowly on narrow two-lane highways) and deliberate violations (e.g., overtaking other cars on solid white lines in crowded two-way roads) (9).

Various studies have referred to the role of human factors as the main cause of traffic irregularities, particularly in driving offenses and accidents. Disregard for traffic regulations and evasion of law as the causes of problems, dilemmas and traffic accidents in many societies depend on the cultural, social, economic and geographical conditions of societies. The statistics in Iran are indicative of the high and unusual rates of driving violations which cause irreparable economic losses and social damage, not to mention, human factors have been reported as the main cause of driving violations (10). All interurban taxi drivers are to have the required knowledge and various skills to provide safe travel service in the urban transport fleet. Further, they must all have a driving licence class B2 and adopt the correct driving behaviors while moving along the traffic and avoid accidents using their driving skills.

In a study conducted on 293 drivers with driving licence class B2 in Isfahan, Iran, Oreyzi and Haghayegh (2009) assessed the reliability and validity of Manchester driving behavior questionnaire and determined the types of traffic anomalies. First of all, lapses, slips, unintentional violations and deliberate violations were differentiated from each other to examine the validity of the instrument through the exploratory factor analysis. The results of the final analysis showed that all four factors had high internal consistency: unintentional violations (0.65), deliberate violations (0.86), lapses (0.81), and slips (0.77). The results of this study demonstrated that the Manchester driving behavior questionnaire could be used as a valid and reliable instrument for assessing the driving behaviors (11).

In a descriptive and analytical study conducted on 1,286 interurban drivers in the United Arabic Emirates by Beneret al. (2011), the driving behaviors were investigated in terms of unintentional violations, deliberate violations, lapses, and slips. The results indicated that the unintentional violations, lapses, deliberate violations and slips accounted for 48%, 10.6%, 7.2% and 6.3% of injuries caused by accidents, respectively (12). The results showed that there was a difference between the errors and violations performed by the subjects under study. Furthermore, the rates of slips, violations and lapses were higher compared to those in Australia and European countries (13).

In a study performed on driving examinees in Shiraz, Iran, 537 subjects were selected using convenience sampling through visiting places such as the center for replacement

and issuance of license plates and a central specialized clinic based in Shiraz. For data collection, a demographic questionnaire, the Manchester driving behavior questionnaire, and NEO Personality Inventory were utilized. In addition, correlation and variance analysis were usedfor data analysis. The results of this study demonstrated that there was a significant positive relationship between the scores of neuroticism and the levels of error types and unlawful actions ($p<0.05$). Additionally, it was shown that the scores of agreeableness and extraversion significantly and inversely correlated with the levels of error types and unlawful actions ($p<0.05$). It was demonstrated that only the factors of age and years of driving experience significantly and negatively correlated with dangerous violations ($p<0.05$). Interestingly, there was a significant positive relationship between the years of formal education and each of the rates of error types and dangerous violations ($p<0.05$). Also, the results indicated that there was a significant relationship between the personality traits and driving behaviors (14). The results of Ozkan et al. study (2006) on 242 drivers selected from Finland, England, Greece, Iran, Norway and Turkey showed that lapses were the most common factor in connection with driving accidents, and a relationship was found between the patterns of driving behaviors and accidents. So, it was concluded that driving accidents could be estimated based on the patterns of driving behaviors (15).

Given the significance of this skill, the necessity of correct driving behaviors to minimize loss of life and property caused by accidents, lack of previous research in this respect across Kermanshah, and the fact that a major portion of urban transport is performed by interurban taxi drivers, the present study aimed to investigate the interurban taxi drivers'driving behaviors across Kermanshah, Iran, in 2015.

Methodology

The descriptive cross-sectional study was performed in 2015. The statistical population consisted of all interurban taxi drivers with a driving license and at least one year of driving experience. As for sampling, the cluster random sampling was employed, and the final volume of sample population was estimated to be 200 taxi drivers based on the fact that there were 260 interurban travel agencies across Kermanshah which fell into 20 clusters, and 10 people were selected from each cluster. The final volume of the sample population was estimated to be 184 taxi drivers using the study performed by Oreizy and Haghayegh (2009), but 220 subjects were selected due to the possibility of sample attrition. After the distribution and collection of questionnaires, the final volume of the sample population reached 226 subjects. To encourage the taxi drivers to complete the questionnaires, one car air freshener was given to each of the participants(11).

For data collection, a researcher-made demographic questionnaire and the Manchester driving behavior questionnaire, were utilized. In addition, the face and content validities of the demographic questionnaire were approved by a panel of 10 faculty members at Kermanshah University of Medical Sciences. The Manchester driving behavior questionnaire was developed by Reason et al. (1990) in the Department of Psychology at the University of Manchester. Furthermore, the reliability and validity of this instrument has been confirmed in different countries of the world, including Iran (11). This questionnaire was designed based on the basic theory that errors and violations have different psychological causes and correction procedures, and they should be differentiated. Moreover, given the prohibition of alcoholic beverages in most countries the questions relating to the permitted consumption of alcoholic drinks were modified.. Also, this questionnaire consisted of 50 items with five-point Likert scale (0=never, 1=rarely, 2=sometimes, 3=often, 4=usually, 5=Always). The questions were different in two aspects: the kind of behaviors and the extent of danger that the behavior causes for other drivers. The abnormal behaviors fall into four categories: lapses, slips, unintentional violations, and deliberate violations. Also, in terms of the extent of danger that each of these categories cause for drivers, there are three categorizations: 1) low-risk, 2) average-risk, and 3) high-risk (see Table 1).

The qualitative and quantitative analysis of data were conducted using the SPSS Statistics Software Version 20.0.Furthermore, the statistical tests of mean and variance were employed for the descriptive analysis of the demographic characteristics and driving cultures of the samples under study. To investigate the factor structure of the Manchester driving behavior questionnaire, the principal components analysis, one of the procedures of exploratory factor analysis, with varimax rotation method were utilized and items were operating under factor loading to separate from each other factor and will be calculated error. After performing the factor analysis; the internal consistency was analyzed based on the extracted factors. To commence the study, the required permits were obtained from the Vice Chancellery for the Department of Research and Technology at Kermanshah University of Medical Sciences.

Findings

Of the total of 226 subjects of the present study, 64.2% of drivers were married, and 35.8% were single. The average age of subjects was 34.86 (±11.33), the average work experience measured 9.94 (±8.27), and the average driving history was 5.24 (±3.86). In terms of education, 5.8% of the respondents were illiterate, 32.3% had middle school education, 17.3% were high school graduates, 29.6% had A.A. degrees, 12.4% had B.A./B.Sc. degrees, and 2.7% held M.A./M.Sc. degrees. Besides, 23.9%, 47.3%, 11.5% and 17.3% had class 1, class 2, class B1 and class B2 driver's licenses, respectively. In Table 2, the drivers' behavioral characteristics are shown in terms of traffic violation records and normal behaviors.

To investigate the factor structure of the Manchester driving behavior questionnaire, the principal components analysis, one of the procedures of exploratory factor analysis, with varimax rotation method were utilized. The results showed that the KMQ index measured 0.867. In addition,

Table 1: The Structure of the Items of the Questionnaire Based on the Classification of Abnormal Behaviors and Their Risks (High, Average, and Low)

Risks / Abnormal Behaviors	Low-risk	Average-risk	High-risk	Total
Slips	10	2	9	21
Deliberate Violations	1	2	14	17
Lapses	3	3	3	9
Unintentional Violations	1	1	1	3
Total	15	8	27	50

Table 2: The Frequency Distribution of the Drivers' Behavioral Characteristics in Terms of the Traffic Violation Records and Normal Behaviors

Row	Traffic Violation Records and Normal Behaviors	Frequency	Percentage
1	History of traffic tickets	181	80.1
2	Suspended driver's license due to high-risk driving	13	5.8
3	History of arrest due to high-risk driving	9	4
4	History of accidents leading to injury	22	9.7
5	History of accidents leading to death	7	3.1
6	Fastening seat belt upon riding or driving a car	180	79.6
7	Talking on cellphones while driving	99	43.8
8	Eating and drinking while driving	102	45.1
9	Observing the speed limit	173	76.5
10	The difference between ordinary driving and driving an ambulance	138	61.1

Table 3: The Cronbach's Alpha Coefficients Based on the Standardized Items in Manchester Driving Behavior Questionnaire

	Slips	Deliberate Violations	Lapses	Unintentional Violations
Number of items	21	17	9	3
Cronbach's Alpha Coefficient	0.880	0.859	0.779	0.426

the fours factors of slips, lapses, deliberate violations and unintentional violations were differentiated from each other. The results indicated that these four factors determined 42.169% of the vaiance of behaviors. The reliability of the Manchester driving behavior questionnaire measured 0.92. After performing the factor analysis, the internal consistency was analyzed based on the extracted factors. In Table 3, the internal consistencies of the four factors are shown.

In the first factor (slips), 21 items were examined, and the 9th and 15th questions had the highest (0.873) and lowest (0.869) factor loadings, respectively. In addition, the internal consistency was 0.880 (see Table 4 - next page).

In the second factor (deliberate violations), 17 items were examined, and the 44th and 29th questions had the highest (0.845) and lowest (0.623) factor loadings, respectively. In addition, the internal consistency measured 0.859 (see Table 5 - page 19).

In the third factor (lapses), nine items were examined, and the 33rd and 49th questions had the highest (0.772) and lowest (0.756) factor loadings, respectively. In addition, the internal consistency measured 0.779 (see Table 6 - page 20).

In the fourth factor (unintentional violations), three items were examined, and the 28th and 22nd questions had the highest (0.214) and lowest (0.239) factor loadings, respectively. In addition, the internal consistency measured 0.426 (see Table 7 - page 20).

Table 4: The Statistical Indexes of the First Factor (Slips)

Row	Items	Mean	STDEV	Type of Behavior	Possibility of risk	Reliability after removing the question
1	Attempt to drive away from traffic lights in third gear	0.7	1.08	Slip	Low	0.869
3	Lock yourself out of your car with the keys still inside.	1.15	1.38	Slip	Low	0.871
6	Prior to starting the car, you have tried to drive	0.63	1.69	Slip	Low	0.874
8	Forget where you left your car in a multi-level car park.	0.83	1.20	Slip	Low	0.873
9	Distracted or preoccupied, realize belatedly that the vehicle ahead has slowed, and have to slam on the brakes to avoid a collision	1.46	1.34	Slip	High	0.873
10	Intend to switch on the windscreen wipers, but switch on the lights instead, or vice versa	1.01	1.12	Slip	Low	0.871
13	"Wake up" to realise that you have no clear recollection of the road along which you have just travelled	1.15	1.21	Slip	Low	0.869
14	Miss your exit on a motorway and have to make a detour	1.47	1.07	Slip	Low	0.871
15	Forget which gear you are currently in and have to check with your hand	1.11	1.05	Slip	Low	0.869
7	Intending to drive to destination A, you "wake up" to find yourself en route to B, where the latter is your more usual journey	1.07	1/08	Slip	Low	0.868
20	Try to overtake without first checking your mirror, and then get hooted at by the car behind, which has already begun its overtaking manoeuvre.	1.04	1.01	Slip	High	0.871
23	Lost in thought, you forget that your lights are on full beam until "flashed" by other motorists	0.75	1.01	Slip	Average	0.869
24	On turning left, nearly hit a cyclist who has come up on your inside	0.51	0.99	Slip	High	0.868
25	Attempt to overtake a vehicle that you hadn't noticed was signaling its intention to turn right	0.64	1.07	Slip	Average	0.868
30	Misjudge the speed of an oncoming vehicle when overtaking	0.88	1.02	Slip	High	0.867
32	Fail to notice someone stepping out from behind a bus or parked vehicle until it is nearly too late	0.7	1.04	Slip	High	0.875
38	Fail to read the signs correctly, and exit from a roundabout on the wrong road	1	1.02	Slip	Low	0.869
41	Fail to check your mirror before pulling out, changing lanes, turning, etc	0.93	1.16	Slip	High	0.869
42	Fail to check your mirror before pulling out, changing lanes, turning, etc.	1.07	1.07	Slip	High	0.872
45	Drive with only "half an eye" on the road while looking at a map, changing a radio channel, etc.	1.59	1.29	Slip	High	0.880
46	Fail to notice pedestrians crossing when turning into a side street from a main road.	1.21	0.88	Slip	High	0.873

Table 5: The Statistical Indexes of the Second Factor (Deliberate Violations)

Row	Items	Mean	STDEV	Type of Behavior	Possibility of risk	Reliability after removing the question
4	Become impatient with a slow driver in the outer lane and overtake in places where it is not allowed (outside urban areas, for example).	2.21	1.31	Deliberate Violation	High	0.852
7	Drive especially close or "flash" the car in front as a signal for that driver to go faster or get out of your way	1.34	1.25	Deliberate Violation	High	0.851
16	Stuck behind a slow-moving vehicle on a two-lane highway, you are driven by frustration to try to overtake in risky circumstances	0.75	1	Deliberate Violation	High	0.839
18	Take a chance and go through lights that have turned red	0.82	0.97	Deliberate Violation	High	0.842
19	Angered by another driver's behaviour, you give chase with the intention of giving him/her a piece of your mind.	0.59	0.93	Deliberate Violation	High	0.837
21	Deliberately disregard the speed limits late at night or very early in the morning.	1.01	1.17	Deliberate Violation	High	0.842
26	You have noticed that you are in no condition to drive due to certain medical restrictions such as blood sugar, high blood pressure, etc.	0.56	1.06	Deliberate Violation	High	0.841
27	Have an aversion to a particular class of road user, and indicate your hostility by whatever means you can	0.55	0.05	Deliberate Violation	Average	0.843
29	Park where it is not allowed and risk a fine.	0.65	0.97	Deliberate Violation	Low	0.845
35	Overtake a slow-moving vehicle in the inside lane or on the hard shoulder of a motorway.	0.95	1.12	Deliberate Violation	High	0.845
36	Cut the corner at a right-hand turn and have to swerve violently to avoid an oncoming vehicle.	0.93	1.14	Deliberate Violation	High	0.836
39	Fail to give way when a bus is signalling its intention to pull out.	0.46	0.98	Deliberate Violation	Average	0.856
40	Overtake from left to avoid traffic congestion	0.79	1.09	Deliberate Violation	High	0.842
43	Deliberately drive the wrong way down a deserted one-way street.	0.62	1.05	Deliberate Violation	High	0.838
44	Disregard red lights when driving late at night along empty roads.	0.75	1.36	Deliberate Violation	High	0.845
47	"Race" oncoming vehicles for a one-car gap on a narrow or obstructed road.	0.6	1.07	Deliberate Violation	High	0.839
48	"Race" oncoming vehicles for a one-car gap on a narrow or obstructed road	0.55	1.09	Deliberate Violation	High	0.837

Table 6: The Statistical Indexes of the Third Factor (Lapses)

Row	Items	Mean	STDEV	Type of Behavior	Possibility of risk	Reliability after removing the question
5	Drive along country roads at night as fast with dipped lights as on full beam.	0.23	0.78	Lapse	Average	0.774
11	Turn left onto a main road into the path of an oncoming vehicle that you hadn't seen, or whose speed you had misjudged.	0.88	1.09	Lapse	Average	0.753
12	Misjudge your gap in a car park and nearly (or actually) hit the adjoining vehicle	0.59	0.88	Lapse	Average	0.746
31	Hit something when reversing that you had not previously seen	0.51	0.82	Lapse	High	0.753
33	Plan your route badly, so that you meet traffic congestion you could have avoided	0.83	0.94	Lapse	Low	0.772
34	Overtake a single line of stationary or slow-moving vehicles, only to discover that they were queuing to get through a one-lane gap.	0.77	0.96	Lapse	Low	0.750
37	Get into the wrong lane at a roundabout or approaching a road junction.	0.67	0.98	Lapse	Low	0.743
49	Brake too quickly on a slippery road and/or steer the wrong way in a skid	0.53	0.96	Lapse	High	0.756
50	Misjudge your crossing interval when turning right and narrowly miss a collision.	0.50	0.87	Lapse	High	0.737

Table 7: The Statistical Indexes of the Fourth Factor (Unintentional Violations)

Row	Items	Mean	STDEV	Type of Behavior	Possibility of risk	Reliability after removing the question
2	Check your speedometer and discover that you are unknowingly travelling faster than the legal limit.	1.88	1.43	Unintentional Violation	Average	0.495
22	Forget to pay/renew your statutory insurance and discover that you are driving illegally.	0.59	1	Unintentional Violation	Low	0.239
28	Lost in thought or distracted, you fail to notice someone waiting at a zebra crossing, or a pelican crossing light that has just turned red	0.60	1.03	Unintentional Violation	High	0.214

Discussion

In today's world, car accidents are one of the the leading causes of death of human beings. In Iran, the first fatal car accident was reported in 1926 which has witnessed a progressively ascending trend ever since, so that one of the major causes of three hundred thousand annual deaths occurring in the country, except the cardiovascular diseases, has been car accidents (2). Driving offences, as one of the causes of traffic problems, obstacles and accidents in societies, have different forms depending on the cultural, social, economic and geographical contexts of societies (16,17). Notwithstanding the environmental, controlling and executive factors as well as the disproportion of road structures to the number of vehicles and traffic units and other factors contributing to driving violations, the human factors, as the leading cause, constitute the highest percentage of violations (18,19,20).

The results of the present study demonstrated that with the increase of the age of the subjects under study, the rates of the unintentional violations and average risks were on the rise. This finding was consistent with the results of a study conducted by Lucidi et al. (2006). To further explicate this finding, it can be expressed that with the increase of one's age, one would have a false confidence in one's driving skills, thereby leading to risky behaviors in driving patterns (21). On the other hand, the growing consumption of alcohol and other mind-altering drugs among older drivers has been reported as the cause of risky driving behaviors (22). It should be noted that various studies have addressed the emergence of risky behaviors in the driving patterns at young ages, for example, having less control over stress and losing temper easily (23 & 24). Given this finding, it seems essential that the significance of safe driving be stressed in training programs aimed at strengthening the driving skills of the emergency personnel, regardless of age.

In the driving profession, one should be able to show more distinct driving behaviors than those adopted by other drivers. There have been various reports on the difference between the professional and amateur drivers in terms of risky driving and response to stress, so that the training needs of professional drivers about driving behaviors are very different from those of amateur drivers, for example, the speed limit and destination (25). The results of the present study also indicated that the rate of the average risk in driving increased in line with greater work experience, which can be caused by the abundant stress in the profession.

Given this finding, it is suggested that further studies be conducted in this respect. Although there have been reports about the higher rates of overtaking and exceeding the speed limit among drivers with higher education, the results of the present study demonstrated that the rates of lapses and unintentional violations were higher among drivers holding education under high school diploma (26). This remarkable finding should be taken into consideration in choosing the interurban taxi drivers, and further studies are suggested to be undertaken in this regard.

Compared to other drivers, it seemed that the taxi drivers under study acted more in compliance with the basic principles of preventing accidents such as fastening seat belts and not using mobile phones during driving. In the present study, the rate of fastening seat belts upon riding or driving a car measured 86.8%, while the same rate measured 63.1% in a study done by Bener et al. (2011) (27). In terms of abiding by driving tips, such as not talking on cellphones while driving, not eating and drinking while driving and observing the speed limit, the participants of the present study were in better condition in comparison with those studied by Bener et al. (2011) (27). In Iran, after conducting some research into the causes of driving fatalities, it was found out that not using seat belts was the number one cause, thereby leading to the enactment of a rule in this respect in 2005 which made fastening seat belts compulsory (28), so that the institutionalization of this rule and its growing use have been reported in recent studies (29). However, it should be noted that there were more driving lapses among the samples who used seat belts. It is noteworthy that the primary goal of fastening seat belts is to reduce driving fatalities and injuries with this assumption that it prevents initial hits. Given the interurban driving profession and the importance of the health of victims and the fact that safe driving is one of the main pillars of this profession, it is essential that the driving skills of interurban drivers across Kermanshah be boosted through holding safe driving courses.

Talking on cellphones while driving is another example of unsafe driving, which is more dangerous than other distractors like eating and drinking while driving. Sending and receiving SMS while driving distract the driver's attention from paying close attention to the road ahead, thereby leading to dangerous consequences. Moreover, the results of the present study revealed that there was a significant negative relationship between risky driving behaviors and history of accidents leading to injury and death, thereby confirming reports in this regard in Iran (30).

The present study had several limitations. Firstly, the data were collected through the self-reporting methods, possibly affecting the accuracy of the results and social desirability bias, but various studies have reported that the questionnaire has weak effects on the responses of the subjects in terms of the social desirability bias nevertheless (17 & 10). Secondly, the type and the make of cars were not considered in the present study, and no comparisons were made in this respect. There are some studies that have reported that the drivers of new, more powerful and luxurious cars commit the offense of exceeding the speed limit (31 & 32).

The results of examining the structure of the Manchester driving behavior questionnaire showed that the highest risks were related to deliberate violations and slips, while in a study performed by OREYZI (2011), the highest risks were related to unintentional violations and slips (11). This finding was indicative of the fact that the patterns of taking risks among the interurban taxi drivers residing in Kermanshah were not similar to those adopted by other

drivers in other cities and even other countries. This finding was consistent with the point mentioned by Özkan et al. (2006), stating that 'the Manchester driving behavior questionnaire is regarded as a valid instrument for assessing the driving behaviors. It should be noted that, in addition to the national traffic problems in any society, the regional and local problems and the indigenous and cultural contexts of cities should be taken into consideration, not to mention, training positive driving behaviors may be seen as the best way to improve driving behaviors (9).

Conclusion

Driving is one of the necessary skills of interurban taxi drivers residing in Kermanshah. With the increase of age and work experience, it is likely that the incidence of driving accidents rises, and this skill should not be considered trivial for the sake of age and work experience by any means. In addition, it should be noted that young drivers may not have enough experience in these skills and may have more slips and unintentional violations in their driving behaviors. More to the point, fastening seat belts is no guarantee for safe driving and making driving mistakes. Hence, it is necessary that safe driving workshops and low-risk driving programs be considered for interurban taxi drivers and their driving skills be enhanced.

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