



The Belief and Attitude of the Drivers Toward the Usage of Cellphone while Driving; A Population-Based Survey

Batoul Sedaghati Shokri¹, Seyed Rasoul Davoodi^{1*}, Majid Azimmohseni², Gholamreza Khoshfar³

¹Department of Civil Engineering, Faculty of Engineering, Golestan University, Gorgan, Iran

²Department of Statistics, Faculty of Sciences, Golestan University, Gorgan, Iran

³Department of Social Sciences, Golestan University, Gorgan, Iran

*Corresponding author: Seyed Rasoul Davoodi

Address: Department of Civil Engineering, Faculty of Engineering, Golestan University, Gorgan, Iran.

Tel: +98-32441003; Fax: +98-32441016

e-mail: davoodi76ir@gmail.com

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► ABSTRACT

Objective: To presents a survey investigating differences between drivers' beliefs regarding utilizing cellphone when driving.

Methods: In this population-based survey, the participants who were studied in the North of Iran, Gorgan, were categorized as main urban and rural areas. A sample of 400 drivers, 92 women and 308 men, filled out the four sections questionnaire which was based on the Theory of Planned Behavior (TPB) used for measuring the differences between the drivers' opinions (attitudinal beliefs, normative beliefs, and perceived control behavioral beliefs) about utilizing a cell phone when driving along with their age and driving purpose. Data were collected by distributing the 68- query questionnaire between the drivers.

Results: The MANOVA analysis showed that important discrepancies were found between the normative, control and behavioral beliefs of cellular phone users while driving. As expected, frequent business and younger users with sturdy intention expressed more benefits of further concentration on family members and fewer obstacles that would prevent them from utilizing cellphone when driving than older and frequently personal users.

Conclusion: These results indicated that the benefits of utilizing cellphone while driving are greater than its dangers. To reduce cellphone utilization when driving and increase road safety, more effort is required to lower the perceived advantages of the behavior and to outstand the risks of this hazardous driving act.

Keywords: Drivers' beliefs; Theory of planned behavior; Cellphone; Driving.

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Introduction

Cellular phone production will likely increase significantly from 450 million per year in 2011 to 5 billion per year in 2019 [1] among more than fifty percent of the world population in several countries [2, 3]. Since last decade, cellphones have achieved wide admission in most developed countries, as they have supplied a comparatively reasonable and economical solution for today's communication issues. This tool provides an opportunity for using time more effectively while sitting in the automobile and planning and coordinating for work. However, it seems uncertain that such a complicated task as driving can be performed sufficiently well at the same moment as the other tasks that are required for the driver's attention. Since the number of individuals who utilize cellular phones has risen considerably in recent years, a major social concern is the relationship between talking on the phone while driving and traffic crashes [4], since 44% of all automobile deaths is due to inadvertent incidents [5]. A National Highway Traffic Safety Administration (NHTSA) [6] survey showed that 85% of mobile phone users utilize their cellphones at least several times when driving. Therefore, almost 500,000 of vehicles drivers talk on their cellular phone [7].

Driving is a sophisticated task that requires simultaneous implementation of various sensory, psychic, cognitive, and physical skills. Despite such complexities, it is common that drivers interact in different unrelated activities when driving. These activities include talking to passengers, reading, eating, listening to music, and even making up. With the rise of wireless communication (such as cellphones), complicated entertainment systems and with the advent of modern technologies such as in-car internet, engagement with these devices while driving is increasing dramatically [8-10]. Each activity that disturbs the attention of these drivers can degrade their driving function and has serious repercussions for road safety. Because while driving, drivers should continuously assign their basic cognitive process (attention) to both driving and non-driving tasks. Since several dimensions of the driving task are closely associated with driving experience, drivers are often able to divide their attention between simultaneously tasks without any serious repercussion for safety or driving function. Also, drivers are able of adapting their driving to cope with demands of the driving surrounding or to offset the decline in attention to driving task (such as slowing down, refraining from engaging in risky maneuvers like precession) [11, 12]. Nevertheless, drivers can be distracted by activities in which they cannot assign adequate attention to the driving duty, so their driving function is endangered. In this sense, driver distraction results whenever drivers' cognitive processes (like attention-sharing) and adaptive methods fail and drivers are unable to sufficiently

divide their attention between the main and secondary duties and maintain their driving function at an acceptable level. Distraction can happen either because of the sophisticated secondary tasks or due to the demands of driving task which are so high that they do not allow the function of a secondary task at any level [13-18]. Many studies [19-21] have shown that conversing with cellular phone while driving can considerably distract the driver's attention, and result in increased rates of crash; in other words, nearly one quarter of collisions are caused by drivers' distraction [22-24]. Redelmeier & Tibshirani, (1997) performed a designed study on cellular phones and those who utilized a cell phone at driving and were engaged in crashes and inferred that the crash risk was between 3- 6.5 times more than the conditions in which they did not use cellphones.

The main characteristic of the Theory of Planned Behavior (TPB) is the basic idea of direct decisive items (perceived control behavior, subjective norm, and attitude) of tendencies. It is really thought that attitudes are affected by beliefs about the detriments and benefits of conducting a determined behavior (behavioral beliefs). the subjective norm is specified by the perceived expectancies of particular groups and people PBC (perceived control behavior) and (normative beliefs) is believed to be an efficiency of beliefs regarding the probability that certain agents lead to prevention (like barriers) or simplification (such as motivators) of behavioral function (control beliefs). The main good thing about pursuing a TPB framework is the ability to evaluate the beliefs patronaging the options of PBC, subjective norms, and attitudes elements of the TPB, also to detect the particular beliefs that make a distinction between people with feeble and strong inclinations to carry out a behavior and between people who do and do not do the desired behavior [25, 26].

Cellular phone technology has enabled businessman drivers to utilize their automobile as a cellphone workplace [19]. While businessman drivers may acknowledge the benefit for being in contact [27], once they utilize their cellphone, the probability of a crash is enhanced. So, cellphone utilization when driving a car causes a hazard for safe driving practices at work fields [28]. Since prior empirical studies indicated that commercial-vehicle drivers are more tend to utilize a cellphone when driving than personal- vehicle drivers [29], further studies were performed to determine whether those people who driving frequently for work or personal objectives have various motives to utilize a cellphone. In addition, dissimilarities in control, behavioral, and normative beliefs of drivers with strong and feeble tendencies to utilize a cellphone at driving were evaluated for every driving group (frequently business objectives drivers and frequently personal objectives drivers). Another determining factor which affects mobile-related risks in traffic is age. Lately, car phone utility has increased greatly among

old as well as new aging driver [30, 31].

Young individual consider that their cellular phone is a necessary instrument in the maintenance of sociable networks which there is social pressure to keep in contact at all times [32]. Young motorists have stronger inclination to utilize a cell phone than older motorists to interact in driving activities while driving. Younger people has to [33, 34].

The current study was conducted to understand how drivers' beliefs (attitude, subjective norm, and perceived behavioral control) varied according to age and their objectives while driving. Order to be able to evaluate drivers' strong and feeble intention to utilize cellphone while driving, the following hypotheses were provided according to the possible results:

(a) The normative, behavioral, and control beliefs of people with feeble and strong inclinations to utilize a cellphone when driving car will be checked. It was predicted that these beliefs will vary between individuals who show feeble and strong tendencies to utilize a cellphone when driving a car.

(b) Regarding the variation in behavioral, control, and normative beliefs of people with different inclinations to utilize a cellphone when driving, they were grouped and evaluated according to people age (18-27 years or 28 years old and older) and their driving objectives (personal or business objectives).

Materials and Methods

Participants

The participants who were studied in the North of Iran, Gorgan, were classified both as main urban and rural areas. All participants had a driving license. In general, just 400 questionnaires were filled out (N=400; 23% females, 77% males) by drivers aged 18 to 65 years old (M=35.63 years, SD=8.7). The explanatory data regarding the participants' characteristics are shown in Table 1.

Questionnaire

Normative Beliefs, Behavioral Beliefs, and Control Beliefs

In the first section (behavioral beliefs), the participants were requested to rank how probably it might be that three benefits (such as getting assistance in an urgent, utilizing time effectively and getting information) would happen in case they utilized their cellphone when driving. To evaluate the subjective norm beliefs, the individuals pointed how probably it was that four people (such as friends) would consent of their utilizing a cellphone when driving. Control beliefs were also evaluated by the respondents ranking how probably four parameters (such as police presence) would impede them from utilizing their cellphone when driving. In every belief subset, options were aggregated and averaged to construct 3 combinations: control beliefs ($\alpha=0.72$), normative beliefs ($\alpha=0.78$), and behavioral beliefs ($\alpha=0.82$) for multivariate analyses of variance.

Table 1. Participant demographics characteristics

Variable	Frequency	Percent
Age		
18-24	14	3.5
23-27	47	11.8
28-32	104	26
33-37	96	24
Older than 38 years' old	139	34.8
Gender		
Female	92	23
Male	308	77
Education		
Diploma and under diploma	186	46.6
University degree	214	53.5
Marriage		
Single	66	16.5
Married	334	83.5
Living Area		
Rural	69	17.3
Urban	331	82.8
Occupation		
Employed (full-time & part-time)	279	69.9
Not currently employed/Retired	121	30.1

For measuring the behavioral beliefs, the items' measuring detriments were reflected for compliance with options measuring the features of utilizing a cellphone when driving a car. Data were analyzed by applying IBM SPSS. Multivariate analyses of variance (MANOVA) were also performed to assess the differences between the drivers' beliefs in accordance with cellphone utilization when driving.

Results

By applying multivariate analysis of variance (MANOVA), the variations within the beliefs of individuals who had different inclinations to utilize a cellphone when driving were evaluated. Analyses were performed to detect differences within the beliefs in accordance with age groups and driving objective for people with feeble and strong intentions to utilize a cellphone once driving (Table 2).

Table 2. Manova Wilks' Lambda of beliefs of participants with strong and weak intentions to use a mobile phone while driving

Intention to mobile phone use	Wilks' Lambda
Younger drivers	0.38 ^a
Older drivers	0.33 ^a
Business purpose	0.37 ^a
Personal purpose	0.27 ^a

^a $p < 0.05$

Three one-way multivariate analyses of variance (MANOVAs) were conducted to check strong and feeble inclinations to cellphone use as the independent variable. On the other hand, normative

beliefs, behavioral beliefs, and control beliefs were the dependent variables. Overall, Wilk's Lambdas were significant for all four analyses indicating that there were significant differences at least in one belief (behavioral, control and normative beliefs) between the drivers with strong and feeble intentions to utilize a cellphone once driving (Table 2). Furthermore, ANOVA tables were reported for more detail.

Table 3 show the ANOVA results for the total samples of drivers with strong and feeble inclinations to utilize a cellular phone separately for each group while driving a car. As indicated in Tables 3, the univariates impact assessment suggested that drivers with feeble and strong tendencies to utilize a cellphone when driving a car varied in particular control, normative, and behavioral beliefs. In particular, for behavioral beliefs, the mean values of younger drivers with strong inclinations (3.74) are more than the mean value of younger drivers with weak inclinations (3.06), so younger drivers with

strong inclinations were more probably to conceive that getting assistance in an urgent and utilizing time effectively were more brilliant benefits of utilizing a cellphone when driving a car than people with feeble inclinations to utilize a cellphone when driving.

The univariates' impact assessment showed that within every objective, individuals driving frequently for work objectives had strong and feeble inclinations to utilize a cellphone when driving a car. On the other hand, individuals driving frequently for personal targets had strong and feeble inclinations to utilize a cellphone once driving a car, yet they varied in particular behavioral, control, and normative beliefs (Table 4).

At first, people who drove for work objectives and had strong inclinations to utilize a cellphone when driving were more probably to contemplate getting assistance in an urgent. They received information and used time effectively as benefits of cellphone utilization when driving (Table 4). In behavioral beliefs, the mean

Table 3. Mean differences in beliefs of participants with strong and weak intentions to use a mobile phone while driving according to age

Behavioural belief	Younger Weak Intention	Younger Strong Intention	Older Weak Intention	Older Strong Intention
Using time effectively	3.06	3.74 ^a	3.64	3.75
Receiving information (e.g., directions, important news)	3.40	3.49	3.27	3.44 ^a
Receiving assistance in an emergency	4.11	4.40 ^a	4.14	4.41 ^a
Normative belief				
Friends	1.91	2.62 ^a	2.37	2.48
Family members	3.47	3.92 ^a	3.47	3.51 ^a
Work colleagues	2.07	2.65	2.42	2.67 ^a
Other	1.53	1.46	1.83	1.58
Control belief				
Lack of control	3.49	3.38	3.46	3.64
Police presence	3.75	3.87 ^a	4.12	4.23 ^a
Lack of control over my behavior	3.57	3.67 ^a	3.46	3.82 ^a
Perform several tasks simultaneously	3.54	3.62 ^a	3.02	3.43 ^a

^a $p < 0.001$

Table 4. Mean differences in beliefs of participants with strong and weak intentions to use a mobile phone while driving according to driving purpose (Business purpose)

Behavioral Belief	Business Weak Intention	Business Strong Intention	Personal Weak Intention	Personal Strong Intention
Using time effectively	3.66	3.61 ^a	4.00	4.09 ^a
Receiving information (e.g., directions, important news)	3.41	3.55 ^a	3.75	4.06 ^a
Receiving assistance in an emergency	4.49	3.95 ^a	4.25	3.95 ^a
Normative belief				
Friends	2.26	3.43	1.75	2.06 ^a
Family members	3.59	4.50 ^a	4.00	4.16 ^a
Work colleagues	2.40	3.74 ^a	3.00	2.29
Other	1.65	1.58	1.25	1.72
Control belief				
Lack of control	3.47	3.54 ^a	3.5	3.76 ^a
Police presence	4.16	3.11	4.00	4.23 ^a
Lack of control over my behavior	3.72	3.82 ^a	2.75	3.68 ^a
Perform several tasks simultaneously	3.07	3.64 ^a	3.75	3.19

^a $p < 0.001$

values of motorists driving for frequently business objectives with strong inclinations in using time effectively (3.66) are more than the mean value of motorists driving for frequently business objectives with weak inclinations (3.61).

Discussion

The use of a cell phone while driving has been recognized as a form of distracted driving across the world. In Iran, as in many other countries, phoning while driving is legally restricted because of its negative impact on driving performance which increases accident risk. This study examined the drivers' strong and weak inclination to use cell phone along with age and driving purpose.

Drivers with strong and feeble intentions in both age groups did considerably vary on whether utilizing a cellphone when driving which would lead to getting assistance in an urgent, or utilizing time effectively and getting information. In fact, they were compatible with other comparisons in this study. Therefore, like other driving groups, the benefits caused by utilizing a cellphone once driving led individuals to utilize their cellphone when driving. Younger participants, who aged 28 years and more, with strong inclinations to cellphone utilization when driving were more probably to believe that family members and friends, i.e., the normative factors, would consent more of their utilizing a cellphone when driving than those with feeble intentions to perform such behavior [35]. For control belief, the drivers with strong inclination to utilize a cellphone when driving a car was less probably to understand that police presence, lack of control over behavior, and performing several tasks simultaneously would probably stop them from interacting in this behavior more than those with feeble inclinations to utilize a cellphone when driving. Older participants were the same in control beliefs except in normative and behavioral beliefs. In behavioral belief, older drivers with strong inclinations showed more tendency to realize that getting assistance in an urgent and getting information were more important benefits of utilizing a cellphone when driving than individuals with feeble inclinations to utilize a cellphone when driving. In normative belief, they were more probable to perceive that family members and work colleagues would consent their utilizing a cellphone when driving than older drivers with feeble intentions [35].

The behavioral beliefs that make distinction between people driving for frequently work objectives with strong and feeble inclinations to utilize their cellphone when driving a car followed a similar pattern like that of the older drivers' groups. Eventually, participants driving frequently for personal targets with strong inclinations to utilize a cellphone once driving were less probably to understand performing several tasks simultaneously as a factor deterring cellphone utilization when driving compared with drivers who

drove frequently for personal targets and had feeble inclinations to show such behavior. Particularly, frequently business objective drivers with strong tendency were more probable to express that utilizing a cellphone when driving would frequently lead them to use time properly, get information, and get assistance in an urgent in comparison to drivers with feeble tendency. Individuals driving for frequently business objectives with strong inclinations were less probably to comprehend that police presence as a key factor deterred them more often from utilizing a cellphone when driving than people driving frequently for business objectives with feeble intentions to utilize a cellphone once driving. Individuals driving frequently for personal targets with strong inclinations to utilize a cellphone were more probably to believe subjective norm confirmation for utilizing a cellular phone when driving a car of all specified factors, excluding the 'other', than people driving frequently for personal targets with feeble inclinations to utilize a cellphone when driving. Frequently personal -purpose drivers with strong tendency were more probable to understand the fact that benefits would lead to their utilizing a cellphone when driving more frequently than the drivers' feeble tendency to frequently personal purposes.

Like majority of other groups, both frequently business and frequently personal objective drivers who had strong intentions to utilize a cellphone when driving understood more strongly than the drivers with feeble tendency. In fact, most of them would consent of their interacting in this behavior. Normative belief was the only belief that did not vary between people with strong and feeble tendency for both type of driving groups focusing the point whether "other" would consent of their utilizing a cellphone when driving. Strong and feeble tendencies in both driving-objective groups stated low levels of confirm from "other" to cellphone utilization once driving.

In control beliefs, like most other comparisons, lack of control did not discriminate drivers with strong and feeble tendency in both age groups. Therefore, performing several tasks simultaneously did hinder some young drivers from utilizing a cellphone when driving. However, people with strong tendency showed that they would continue to utilize a cellphone while driving. Thus, this behavior could also be tough to prevail. The results of differences of two beliefs in the frequently business and frequently personal targets driving groups for drivers with different tendency to utilize a cellphone when driving suggested that almost all suppressive factors would equally affect cellphone utilization among individuals who drive for frequently business or frequently personal objectives.

Like other research adopting a belief-based approach to believe on the whole cellphone utilization [27, 36, 37]. (1985, important variations were found between the behavioral, control, and normative

beliefs of cellphone utilization once driving a car. One probability clarification for this result could be that the perceived advantages of utilizing a cellphone when driving a car are thought to have greater risks resulting from this behavior [38] there is relatively little research into risk perceptions either in relation to other in-car distractions or with respect to the factors underlying such perceptions. The current article reports on two studies addressing these issues. Study 1 (N=199. Some patronage for this claim has been found in past studies [39, 40] especially among young drivers with high rates of mobile phone adoption. We examined reasons younger drivers choose or do not choose to talk on a phone while

driving among a sample of young drivers (n=276 indicating that, even if drivers are informed of the inevitable risks of utilizing a cellphone while driving a car, they still show the behavior in case of any phone call.

In conclusion, the results of the current study indicate that the benefits of utilizing cellphone while driving are greater than its dangers. To reduce cellphone utilization when driving and increase road safety, more effort is required to lower the perceived advantages of the behavior and to outstand the risks of this hazardous driving act.

Conflicts of Interest: None declared.

References

- In: Statista. Number of mobile phone users worldwide from 2013 to 2019. (in billions) Available from: <https://www.statista.com/statistics/274774/forecast-of-mobile-phone-users-worldwide/>.
- In: eMarketer. 2 Billion Consumers Worldwide to Get Smart (phones) by 2016. (Accessed: 17/05/2016). Available from: <https://www.emarketer.com/Article/2-Billion-Consumers-Worldwide-Smartphones-by-2016/1011694>.
- Wray R. Half world's population 'will have mobile phone by end of year.'. The Guardian UK. 2008.
- Becic E. Aging and the effects of conversation with a passenger of a caller on simulated driving performance: University of Illinois at Urbana-Champaign; 2009.
- National Safety Council Injury Facts. National Safety Council: USA; 2013. p.1-52.
- Administration USNHTS. An investigation of the safety implications of wireless communications in vehicles: US Dept. of Transportation, National Highway Transportation Safety Administration; 1997.
- Llaneras R. NHTSA driver distraction internet forum: Summary and proceedings. [Online]. Washington, DC: US Department of Transportation, National Highway Safety Administration. 2000.
- Castro C, Horberry T. The human factors of transport signs: CRC press; 2004.
- Regan MA. A Sign of the Future-1: Intelligent Transport Systems. (Chapter 14) In Castro, C. and Horberry, T. The Human Factors of Transport Signs. 2004:213-24.
- Regan MA. New technologies in cars: human factors and safety issues. *Ergonomics Australia*. 2004;**8**(3):6-15.
- Bjornskau T, Elvik R. Can road traffic law enforcement permanently reduce the number of accidents? *Accid Anal Prev*. 1992;**24**(5):507-20.
- Haigney D, Taylor R, Westerman S. Concurrent mobile (cellular) phone use and driving performance: task demand characteristics and compensatory processes. *Transportation Research Part F: Traffic Psychology and Behaviour*. 2000;**3**(3):113-21.
- Lee JD, Strayer DL. Preface to the special section on driver distraction. *Hum Factors*. 2004;**46**(4):583-6.
- McPhee LC, Scialfa CT, Dennis WM, Ho G, Caird JK. Age differences in visual search for traffic signs during a simulated conversation. *Hum Factors*. 2004;**46**(4):674-85.
- Strayer DL, Drews FA, Crouch DJ. A comparison of the cell phone driver and the drunk driver. *Hum Factors*. 2006;**48**(2):381-91.
- Strayer DL, Drews FA, Johnston WA. Cell phone-induced failures of visual attention during simulated driving. *J Exp Psychol Appl*. 2003;**9**(1):23-32.
- Strayer DL, Drews FA. Profiles in driver distraction: effects of cell phone conversations on younger and older drivers. *Hum Factors*. 2004;**46**(4):640-9.
- Treat JR. A study of precrash factors involved in traffic accidents. HSRI Research Review. 1980.
- Eost C, Flyte MG. An investigation into the use of the car as a mobile office. *Appl Ergon*. 1998;**29**(5):383-8.
- Redelmeier DA, Tibshirani RJ. Association between cellular-telephone calls and motor vehicle collisions. *N Engl J Med*. 1997;**336**(7):453-8.
- Rudin-Brown CM, Young KL, Patten C, Lenne MG, Ceci R. Driver distraction in an unusual environment: Effects of text-messaging in tunnels. *Accid Anal Prev*. 2013;**50**:122-9.
- Klauer SG, Dingus TA, Neale VL, Sudweeks JD, Ramsey DJ. The impact of driver inattention on near-crash/crash risk: An analysis using the 100-car naturalistic driving study data. 2006.
- Stutts J, Feaganes J, Reinfurt D, Rodgman E, Hamlett C, Gish K, et al. Driver's exposure to distractions in their natural driving environment. *Accid Anal Prev*. 2005;**37**(6):1093-101.
- Wang J-S, Knippling RR, Goodman MJ, editors. The role of driver inattention in crashes: New statistics from the 1995 Crashworthiness Data System. 40th annual proceedings of the Association for the Advancement of Automotive Medicine; 1996.
- Ajzen I. The theory of planned behavior. *Organizational behavior and human decision processes*. 1991;**50**(2):179-211.
- Fishbein M, Stasson M. The role of desires, self-predictions, and perceived control in the prediction of training session attendance. *Journal of Applied Social Psychology*. 1990;**20**(3):173-98.
- Walsh S, White K. Ring, Ring, Why Did I Make That Call?: Mobile Phone Beliefs and Behaviour Among Australian University Students. *Youth Studies Australia*. 2006;**25**(3):49.
- Salminen S. Seriousness of traffic accidents during work and commuting. *Percept Mot Skills*. 2003;**97**(1):147-50.
- Glendon AI, Sutton D. Observing motorway driving violations. Contemporary issues in road user behavior and traffic safety. New York: Nova Science Publishers; 2005.
- Caird JK, Willness CR, Steel P, Scialfa C. A meta-analysis of the effects of cell phones on driver performance. *Accid Anal Prev*. 2008;**40**(4):1282-93.
- Glendon AI, Clarke S, McKenna E.

- Human safety and risk management: Crc Press; 2016.
32. Walsh SP, White KM, Watson BC, Hyde MK. Psychosocial factors influencing mobile phone use while driving. 2007.
 33. Hosking SG, Young KL, Regan MA. The effects of text messaging on young drivers. *Hum Factors*. 2009;**51**(4):582-92.
 34. Isa KAM, Masuri MG, Aziz NAA, Isa NNM, Hazali N, Tahir MPM, et al. Mobile phone usage behaviour while driving among educated young adults in the urban university. *Procedia-Social and Behavioral Sciences*. 2012;**36**:414-20.
 35. Walsh SP, White KM, Young RM. Over-connected? A qualitative exploration of the relationship between Australian youth and their mobile phones. *Journal of adolescence*. 2008;**31**(1):77-92.
 36. Elliott MA, Armitage CJ, Baughan CJ. Exploring the beliefs underpinning drivers' intentions to comply with speed limits. *Transportation Research Part F: Traffic Psychology and Behaviour*. 2005;**8**(6):459-79.
 37. Warner HW, Åberg L. Drivers' beliefs about exceeding the speed limits. *Transportation Research Part F: Traffic Psychology and Behaviour*. 2008;**11**(5):376-89.
 38. White MP, Eiser JR, Harris PR. Risk perceptions of mobile phone use while driving. *Risk analysis*. 2004;**24**(2):323-34.
 39. Nelson E, Atchley P, Little TD. The effects of perception of risk and importance of answering and initiating a cellular phone call while driving. *Accid Anal Prev*. 2009;**41**(3):438-44.
 40. White MP, Eiser JR, Harris PR, Pahl S. Who reaps the benefits, who bears the risks? Comparative optimism, comparative utility, and regulatory preferences for mobile phone technology. *Risk Anal*. 2007;**27**(3):741-53.