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# THE PROFILE OF THE ROMANIAN AGGRESSIVE DRIVER

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#### **ABSTRACT**

Various studies have documented that aggressive driving is indeed a real problem. In each country there are various aspects of dangerous driving of empirical and practical concern and there are also individual differences to be explored. The present study aims at profiling the Romanian aggressive driver and questioning whether there are differences according to demographic variables such as: gender, age, area of living, marital status, religion, socio-economic status and level of instruction. An educational purpose may be nevertheless included. If psychologist may be provided with the profile of psychological driver and the predisposition of some to risky drivind according to age, marital status, religion, area of living and other demographic variables, they may shorten the time spent for evaluation and recommend counseling sessions for anger management for those identified with risky driving behavior. Neverheless, other sound measures of dangerous driving are needed to understand differences and commonalties between aggression, negative cognitive/emotional driving, and risky driving. The study presents the DDDI results that might help psychologist in evaluating some variables that are part of the profile of the aggressive driver in Romania; we used it as a psychometric screening tool to select individuals who are prone to dangerous driving styles and who could benefit from sketching a cognitive-behaviour therapy (CBT)-type therapeutic intervention, at least in Romania. The educational implication of this study are that such types of interventions as cognitive-behavioral interventions (e.g., relaxation, cognitive restructuring, and behavioral skill building) may be suggested after testing the drivers in order to reduce and maintain reductions of driving anger, aggressive anger expression, aggression, risky behavior, and general anger.

**Keywords:** aggressiveness; drivers; demographic variables; profile;

#### 1. INTRODUCTION

Aggressive driving has become a concern in recent decades. This paper aims at capturing the demographic variables involved in aggressive driving: whether there are differences in gender, religion, age, marital status, socio-economic status etc.

Research suggests that young men are most likely to perpetuate road rage. Environmental factors such as busy roads can stimulate anger while driving. Certain psychological factors, including displaced anger and high level of dayly stress, are also linked to road rage. The present study regards the Romanian drivers and tries to capture a profile and variables that may help Romanian psychologists find appropriate measures and programmes to reduse aggressiveness; therefore, the educational implication of this study is that understanding which are the demographic variables that predispose drivers to displaying anger when drivind may hep both preventing dangerous behavior and helping drivers by psychologal interventions reduce it.



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#### 2. PROFILE OF AGGRESSIVE DRIVER

In studies of anger and aggressive driving, psychologist Jerry Deffenbacher of Colorado State University found that people who identified as high-anger drivers differed from low-anger drivers in five key ways:

- They engage in hostile, aggressive thinking. They're more likely to insult other drivers or express disbelief about the way others drive. Their thoughts also turn more often to revenge, which sometimes means physical harm.
- They take more risks on the road. High-anger drivers are more likely to go 10 to 20 mph over the speed limit, rapidly switch lanes, tailgate and enter an intersection when the light turns red.
- High anger drivers get angry faster and behave more aggressively. They're more likely to swear or name-call, to yell at other drivers, to honk in anger. And they're more likely to be angry not just behind the wheel, but throughout the day.
- High-anger drivers had twice as many car accidents in driving simulations. They also report more near-accidents and get more tickets for speeding.
- Short-fused drivers experience more trait anger, impulsiveness. Perhaps from work or home stress, high-anger drivers are more likely to get in the car angry; they also tend to express their anger outward and act impulsively. (American Psychological Association, February 2014)

While driving, high anger drivers experience more anger triggers, frequent and intense anger, hostile thinking, aggression, risky behavior, and some crash-related conditions than low anger drivers. For us, the psychologists, such findings are very important as we may suggest in Romania types of interventions such as cognitive-behavioral interventions (e.g., relaxation, cognitive restructuring, and behavioral skill building) to reduce and maintain reductions of driving anger, aggressive anger expression, aggression, risky behavior, and general anger.

Mihai Copăceanu divides aggressive drivers into several categories:

1. The author who is aggressive also in everyday life

This category includes those people who are aggressive not only in traffic, but also on the street or at home, and if you enter even a small contradiction with them, you risk being at least apostrophized. These people, when exposed to unpleasant road events, can even come into physical conflict with other road users. In these people, aggression is present both as a state and as a personality trait. Research on the etiology of medical disorders, both the expression and control of anger have been shown to be important variables, which must be differentiated from the simple manifestation of feelings of anger. Therefore, the differentiated development of scales to estimate anger as a state and anger as a trait, as well as scales focused on specific aspects of anger expression, would be appropriate.

2. We then have the driver who, once behind the wheel, realizes that he is not arriving at his destination in time. At that moment, the stress level increases and they try to reach the destination regardless of whether there is snow or police in the area. We are talking about drivers who are normally responsible (Copăceanu, M., 2016). From the reports of some drivers in this situation of frustration or stress, we can find out that some of them were on the verge of having a minor accident, serious or very serious, but they realized this only when the danger passed and the level of adrenaline and acetylcholine dropped considerably. Being on the verge of stepping on a pedestrian crossing illegally or turning red seems to be perceived only when the driver is filming the day, when asked to recall the act or conduct of aggression



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by either the injured party or any member of the family. Most admit that on an ordinary day they would not resort to such conduct, but we are talking here about days when he either goes to the hospital to give birth to his wife or has an important presentation, so we are talking about a very high activation of the person. before getting behind the wheel, which intensifies as he realizes that the traffic jam accentuates even more the frustration and anxiety he already feels.

- 3. The third type of driver identified by a psychologist *is the driver who feels stronger behind the wheel.* "There is even a study that shows that those who have massive cars drive more risky. They have higher speed, they make sudden movements.
- 4. Then we have the category of taxi drivers, who think they are different from other drivers. They consider themselves professional drivers and believe they are as important as firefighters, police or rescue and they claim some illegal rights and status ", the psychologist added. The fines would make the drivers responsible. Regarding the last category of identified drivers, the very prudent ones, they are a minority in traffic, ie they account for a percentage of only 7%. Mihai Copăceanu also shows that one reason why drivers do not respect the law is the fact that it does not apply everywhere. "If the fines were harsher, it would be something else, it would discourage crime. At the moment, you are encouraged to consider that the street is yours, as long as you know you can break the law, but you are not properly penalized, as is the case abroad. It also has to do with education, and from this point of view, Romanian drivers are less educated than Europeans", the specialist concluded. According to a report by the European Union, with a rate of 91 deaths per million inhabitants, our country ranks second in the European bloc in terms of the number of deaths in road accidents. The differences between Romanian and European drivers are like from heaven to earth, says psychologist Mihai Copaceanu. He points out that among the most responsible and prudent in traffic are the Swiss, who are also permissive with those who sometimes do not follow all the rules in traffic. The same cannot be said about Italians who, as a driving style, resemble Romanians.

Is it possible, however, to draw a robot portrait of the aggressive driver? Psychologist Ionel Simionca answers in an interview as follows: There are dominant profiles of risk behavior, but we refer to young people with little experience who tend to be brave in traffic. He is the man who wants an identity that he does not have and then, through the car he has, he creates a new one. However, these profiles are not as stable as they seem. More precisely, the same driver in Bucharest behaves in one way and in Vienna in another way. What is the explanation? Because it relates to other values. There I know that they have to suffer certain consequences, while here they prefer to show strength because I know they have this possibility. In their minds they imagine that if they do something stupid in traffic they can negotiate with the policeman. But that stupidity unfortunately costs the lives of those who entered the sidewalk. A responsible driver who respects traffic rules and knows his limits will behave in a preventive manner. In traffic, the risk means two seconds. In other words, a decision made in two seconds can cost people's lives. (Ionel Simionca, 2016)

#### 3. RESEARCH TOOLS

#### 3.1. DDDI: The Dula Drangerous Driving Index

Sullman and colleagues (2007) documented an increase in driving anger research, noting that while evidence for an actual increase in driving anger is inconclusive, studying driving anger is important because it is common and angry drivers engage in more dangerous



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behaviours including losing vehicular control, near hits, losing concentration, and crashing in simulators. While not necessarily leading to actual aggressive behavior, anger, irritation, frustration, and related rumination, may well increase one's risk of becoming involved in a crash, and are thus dangerous in and of themselves (Sullman et al., 2007).

In theory, we might ask drivers to describe their typical driving style and conclude that their answers indicate more or less stable patterns, ready to manifest at any time. In practice, The Dula Dangerous Driving Index shows that drivers tend to be motivated to give answers that make them appear safer, more cautious and less at risk than they really are to avoid embarrassment or financial penalties.

Genuine aggression requires that the intention to harm be present among the subject's motivations and most of the time the behaviors included by researchers in the definitions of aggressive driving did not meet this criterion or it was less clearly imposed in situations used as stimuli. The scientific literature related to aggression has a long history, is very extensive and includes animal and human modeling and theories. This literature is very clear in the following respect: aggression is the result of the intention to do harm, regardless of the degree to which this intention manifests itself or the intensity of the harm that is intended to be caused. Despite this consensus, the traffic safety literature has failed to make this crucial distinction until much more recently.

Another category worth considering is cognitively or emotionally negatively charged driving. We are talking about an angry or angry driver in a certain situation, caused by the behavior of other drivers or other people in a vehicle. The mental state of such a driver makes part of his cognitive resources to be involved in other actions and to destabilize attention, the ability to concentrate, which can become potential contributors to the degree of danger. That's why we chose DDDI as one of the methods for measuring driver aggression, as it measures the three main types of dangerous driving, covering at least some potentially risky drivers, meaning those sour drivers are prone to dangerous driving styles. As described by Havârneanu the Dula Dangerous Driving Index (DDDI) is another questionnaire that can be used to measure the aggressive tendency in driving. The tool was created by clinical psychologist Chris Dula (East Tennessee State University, USA) to measure Aggressive driving and road rage, along with Negative Cognitive / Emotional Driving, and risky driving. (Risky driving). Some validity studies have suggested a four-factor structure, in which driving under the influence of alcohol (Drunk driving) forms a factor independent of risky driving (Willemsen et al., 2008). Also, the high correlations between factors suggest that DDDI subscales could actually be used as a one-dimensional measure of hazardous driving using the total score. Although following several validity studies, the factorial structure of DDDI remains somewhat unclear, the instrument may provide an overall assessment of the trend towards aggressive and risky behaviors in traffic. The Romanian version of DDDI (Dula, Iliescu and Ionescu, 2009) contains 28 items divided into three subscales: Aggressiveness, Cognitions / Negative Emotions and Risk. Although it was originally created to measure a construct that in the literature of the time was called aggressive driving (1998), its author, along with other colleagues quickly realized that these constructs are inconsistent and provide a poor definition in literature.

Even if driving aggression presents a real risk, this is just one of the many areas of driving that are dangerous (DDDI, Introduction, section 1). Dula and Geller (2004) suggested, in harmony with Dula and Ballard (2003), this concept of dangerous driving can be used as a primary concept in research and that this umbrella category can be divided into



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subdivisions that may or may not be interrelated. DDDI was divided into three subscales which are now called Aggressive Driving, Cognitive | Emotional Driving, Risky Driving. Recently = it was confirmed by factorial analysis works (Willem, Dula, Duclercq, & Verhaeghe, 2007) that driving and the influence of certain substances, such as alcohol or groceries, is also captured in DDDI, but in the present form of the questionnaire there are only two items that evaluate this area.

DDDI can also be used as a psychometric screening tool to select individuals who are prone to dangerous driving styles and who could benefit from sketching a CBT-type therapeutic intervention, at least in Romania. In this paper we try take the fist step in identifying the potential aggressive drivers; the category will furher be submitted for a type of intervention either at the entrance to the driving school or while attending it.

Another important aspect is that DDDI can also be used as a tool to measure the effects of a psychological counseling or developmental intervention, which was performed on the behaviors or attitudes of a person as a psychologist.

This research was attended by drivers who present themselves at the periodic annual evaluation (periodic control), on which occasion we administered this test. They were informed that the data would be used in a study, that the data would not influence the outcome of the regular check-up and, for greater credibility of the psychologist and to increase confidence in the examiner. DDDI was administered after granting the favorable check related to the annual check. On the one hand, the subjects who answered the questionnaire are drivers who have been choosing our psychological office for years, so there was no need to collect other normative data from the groups of drivers, as they were present in our database.

### 4. RESEARCH HYPOTHESIS, RESULTS AND INTEPRETATION

We stated that there were differences in dangerous driving depending on demographic variables. We used the DDDI to test this on Romanian drivers.

We further present the DDDI results that help us in evaluating some variables that are part of the profile of the aggressive driver in Romania; we used it as a psychometric screening tool to select individuals who are prone to dangerous driving styles and who could benefit from sketching a CBT-type therapeutic intervention, at least in Romania.

## 4. 1. NEGATIVE EMOTIONS / COGNITIONS SUBSCALE

#### 4.1.1. Gender differences

The Kolmogorov-Smirnov test for assessing the normality of distributions indicates that the scores on the Negative Emotions / Cognitions subscales deviate from a Gaussian distribution, both in men (z = .164, p < .001) and in women (z = .222, p = .001). Therefore, to test whether there are significant differences between men and women in terms of negative emotions / cognitions, we used the non-parametric Mann-Whitney U test by gender.

Men scored slightly higher on the cognitive cognition / emotions subscale (average of 103.05) compared to women (average of 98.87), but these differences are not statistically significant, as indicated by the Mann-Whitney U test (p > 0.05).

Gender	N	Median	Mean*	SD	Mean ranks	Mann-Whitney U	Z	p
Masculine	177	12.00	13.14	3.71	103.05	2291.5	-0.346	.730



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Feminine	27	11.00	12.85	3.47	98.87		
SD = standa	rd dev	riation					

## 4.1.2. Age differences

The Kolmogorov-Smirnov test for the assessment of normality of distributions indicates that the scores on the Negative Emotions / Cognitions subscales deviate from a Gaussian distribution, for all age stages:

- For respondents aged 20-35 years (N = 49) we obtained z = .160, p = .003;
- For respondents aged 35-40 years (N = 42) we obtained z = .167, p = .005;
- For respondents aged 40-55 years (N = 86) we obtained z = .200, p < .001.

Descriptive statistics (mean ranks) show that adult men aged 35-40 tend to have lower levels of negative emotions and cognitions compared to other age groups, but these differences are not statistically significant, as the p value for the Kruskal test -Wallis H is greater than 0.05.

Age stages	N	Median	Mean	SD	Mean ranks	Kruskal-Wallis H	df	p
20-35 years	49	13	13.25	3.30	93.29			
35-40 years	42	12.00	12.50	3.49	80.86	1.501	2	.472
40-55 years	86	12.00	13.38	4.02	90.53			

### 4.1.3. Differences depending on the area of living(rural/urban)

The Kolmogorov-Smirnov test for the assessment of normality of distributions indicates that the scores on the Negative Emotions / Cognitions subscales deviate from a Gaussian distribution, both in the case of men from rural areas (z = .170, p = .002) and in the case of men cve come from urban areas (z = .176, p < .001).

Rural men scored slightly higher on the cognitive cognition / emotions subscale (average of 93.47) compared to urban men (average of 86.74), but these differences are not statistically significant, as indicated by the Mann-Whitney U test (p > 0.05).

Area of living	N	Median	Mean	SD	Mean Ranks	Mann- Whitney U	Z	p
Rural	46	12.50	13.35	3.54	93.47	2761.5	-0.775	.438
Urban	130	12.00	13.05	3.79	86.74	2,0110	01770	

## 4.1.3. Differences depending on socio-economic status

The Kolmogorov-Smirnov test for assessing the normality of distributions indicates that the scores on the Negative Emotions / Cognitions subscales deviate from a Gaussian distribution in both men with a socioeconomic status below the average level in the economy



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(z = .197, p < .001), as well as in the case of men with a socio-economic status above the average in the economy (z = .180, p < ..001).

Socio- economic status	N	Median	Mean	SD	Mean ranks	Mann- Whitney U	Z	p
Under medium level	52	13.00	13.31	3.66	91.28	3131.50	-0.384	.70
Over medium level	125	12.00	13.06	3.74	88.05	2131.30	0.501	1

## 4.1.4. Differences depending on religion

The Kolmogorov-Smirnov test for assessing the normality of distributions indicates that the scores on the Negative Emotions / Cognitions subscale deviate from a Gaussian distribution in the case of men who declare themselves Orthodox (z = .164, p < .001), but not in the case of men who it is declared to have a different religious orientation (z = .197, p =.200).

Orthodox men scored lower on the negative cognition / emotions subscale (average of 88.47 ranks) compared to men of other religions (average of 101.93 ranks), but these differences are not statistically significant, as indicated by the Mann-Whitney U test (p> 0.05).

Religion	N	Median	Mean	SD	Mean ranks	Mean ranks Whitney U		p
Orthodox	170	12.00	13.10	3.70	88.47	504.50	-0.686	.493
Other	7	14.00	14.00	4.08	101.93		2.300	,5

#### 4.1.5 .Differences depending on the level of instruction

The Kolmogorov-Smirnov test for assessing the normality of distributions indicates that the scores on the Negative Emotions / Cognitions subscales deviate from a Gaussian distribution for all levels of training:

- For men with 10 grades or vocational school (N = 22) we obtained z = .228, p =.004;
- For men with high school or post-secondary school (N = 79) we obtained z = .194, p <.001;
- For men with university or postgraduate studies (N = 76) we obtained z = .155, p <.001.

Descriptive statistics (average ranks) show that men with a university or postgraduate degree tend to have lower levels of negative emotions and cognitions compared to other categories of men, but these differences are not statistically significant, as the p value for the Kruskal-Wallis H test is greater than 0.05.



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Level of instruction	N	Median	Mean	SD	Mean rank	Kruskal- Wallis H	df	
10 grades or professional school	22	11.50	3.41	.01	91.50			
Highschool or secondary highschool	79	12.00	3.23	.52	92.28	0.88		6 4 3
Bachelor or postgraduate	76	12.00	2.96	.85	84.87			3

### 4.1.6. Differences depending on marital status

The Kolmogorov-Smirnov test for assessing the normality of distributions indicates that the scores on the Negative Emotions / Cognitions subscales deviate from a Gaussian distribution for all categories of marital status:

- For married men (N = 115) we obtained z = .173, p < .001;
- For unmarried men (N = 49) we obtained z = .164, p = .002;
- For divorced men (N = 11) we obtained z = .280, p = .016.

Descriptive statistics (mean ranks) show that divorced men tend to have lower levels of negative emotions and cognitions compared to married or unmarried men, but these differences are not statistically significant, as the p value for the Kruskal-Wallis H test is higher than 0.05.

Marital status	N	Median	Mean	SD	Mean ranks	Kruskal-Wallis H	df	p
married	115	12.00	13.20	3.78	89.37			
unmarried	49	12.00	13.245	3.57	90.76	3.294	2	.193
divorced	11	10.00	11.64	3.78	61.45			

#### 4.2. AGRESSIVE DRIVING SUBSCALE

#### 4.2.1. Gender differences

The Kolmogorov-Smirnov test for assessing the normality of distributions indicates that Aggressive Driving subscale scores deviate from a Gaussian distribution, both in men (z = .350, p < .001) and in women (z = .317, p < .001). Therefore, to support the hypothesis that I confirm that there are significant differences between men and women in terms of aggressive driving, we used the non-parametric Mann-Whitney U test. Men scored slightly higher on the aggressive subscale (average of 102.75) compared to women (average of 100.89), but these differences are not statistically significant, as indicated by the Mann-Whitney U test (p> 0.05).



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Gender	N	Median	Mean	SD	Mean ranks	Mann-Whitney U	Z	p
Masculine	177	7.00	8.08	2.80	102.75	2346.00	-0.177	.860
Feminine	27	7.00	7.82	1.71	100.89		2.2,,	

#### 4.2.2. Age differences

The Kolmogorov-Smirnov test for the assessment of normality of distributions indicates that the scores on Aggressive Driving subscales deviate from a Gaussian distribution, for all age stages:

- For respondents aged 20-35 years (N = 49) we obtained z = .302, p < .001;
- For respondents aged 35-40 years (N = 42) we obtained z = .389, p < .001;
- For respondents aged 40-55 years (N = 86) we obtained z = .374, p < .001.

Descriptive statistics (mean ranks) show that adult men aged 35-40 tend to have lower levels of dangerous driving compared to other age groups, but these differences are not statistically significant, as the p value for the Kruskal-Wallis test H is greater than 0.05.

Age stages	N	Median	Mean	SD	Mean ranks	Kruskal-Wallis H	df	p
20-35	49	7.00	8.27	2.26	97.59	2.624	2	.269
35-40	42	7.00	7.76	1.46	84.40			
40-55	86	7.00	8.13	3.50	86.35			

## 4.2.3. Differences depending on the area of living

The Kolmogorov-Smirnov test for assessing the normality of distributions indicates that Aggressive Driving subscale scores deviate from a Gaussian distribution, both in the case of men from rural areas (z = .339, p < .001) and in the case of men come from the urban environment (z = .352, p < .001). Therefore, to test the hypothesis I confirm that there are significant differences in terms of aggressive driving depending on the environment of origin.

Rural men scored slightly higher on the aggressive driving subscale (average ranks 97.80) compared to urban men (average ranks 88.75), but these differences are not statistically significant, as indicated by the Mann-Whitney U test (p> 0.05).

Mediu de proveniență	N	Mediana	Media	SD	Media rangurilor	Mann- Whitney U	Z	p
Rural	46	7.00	8.00	2.41	97.80	2958.0	-0.125	.901
Urban	130	7.00	8.12	2.94	88.75	2)30.0	-0.123	.501

#### 4.2.4. Differences depending on the socio-economic status

The Kolmogorov-Smirnov test for assessing the normality of distributions indicates that Aggressive Driving subscale scores deviate from a Gaussian distribution in both men with a socioeconomic status below the average level in the economy (z=.312, p<.001) and and in the case of men with a socio-economic status above the average in the economy (z=.362, p<..001). Therefore, to test the confirm hypothesis that there are significant differences in aggressive driving depending on socioeconomic status, we used the non-parametric Mann-Whitney U test.



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Men with a socio-economic level below the average obtained slightly higher scores at the aggressive driving subscale (average of 96.28 ranks) compared to men with a socio-economic level above the average (average of the ranks 85.97), but these differences are not statistically significant as indicated by the Mann-Whitney U test (p> 0.05).

Socio-ecc stat		N	Median	Mean	SD	Mean ranks	Mann-Whitney U	Z	p
Under level	medium	52	7.00	8.14	2.31	96.28	2871.5	-	.157
Above level	medium	125	7.00	8.06	2.99	85.97	2071.6	1.415	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

#### 4.2.5. Differences depending on religion

The Kolmogorov-Smirnov test for assessing the normality of distributions indicates that Aggressive Driving subscale scores deviate from a Gaussian distribution for men who declare themselves Orthodox (z=.356, p<.001), but not for men who declare themselves as having a different religious orientation (z=.248, p=.200). Because for one of the categories of this variable the data do not show a normal distribution, we used the non-parametric Mann-Whitney test.

Religion	N	Median	Mean	SD	Mean ranks	Mann- Whitney U	Z	p	
Orthodox	170	7.00	8.01	2.74	87.99	421.50	-1.516	.129	
Other	7	8.00	9.71	3.99	113.79	1.50	1.510		

### 4.2.6. Differences depending on marital status

The Kolmogorov-Smirnov test for assessing the normality of distributions indicates that Aggressive Driving subscale scores deviate from a Gaussian distribution for all categories of marital status:

- For married men (N = 115) we obtained z = .362, p < .001;
- For unmarried men (N = 49) we obtained z = .308, p < .001;
- For divorced men (N = 11) we obtained z = .492, p < .001.

Descriptive statistics (average ranks) show that divorced men tend to have slightly lower levels of aggressive driving compared to married or unmarried men, but these differences are not statistically significant, as the p value for the Kruskal-Wallis H test is greater than 0.05.

Marital status	N	Median	Mean	SD	Mean ranks	Kruskal-Wallis H	df	p
married	115	7.00	8.12	3.19	86.81			
unmaried	49	7.00	8.06	2.02	93.82	2.008	2	.366
divorced	11	7.00	7.55	1.22	74.55			



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## 4.2.6. Differences depending on the level of training

The Kolmogorov-Smirnov test for assessing the normality of distributions indicates that scores on aggressive Sofat subscales deviate from a Gaussian distribution for all levels of training:

- $\bullet$  For men with 10 grades or vocational school (N = 22) we obtained z = .352, p < .001;
- $\bullet$  For men with high school or post-secondary school (N = 79) we obtained z = .380, p < .001;
- For men with university or postgraduate studies (N = 76) we obtained z = .346, p < .001.

Descriptive statistics (average ranks) show that men tend to have similar levels of aggressive driving regardless of their level of training. This is also indicated by the statistical test, for which we obtained a p value greater than 0.05.

Level of instruction	N	Median	Mean	SD	Mean ranks	Kruskal- Wallis H	df	p
10 grades or professional school	22	7.00	8.27	3.25	88.57			
Highschool or secondary highschool	79	7.00	7.99	3.24	88.37	0.882	2	.643
Bachelor or postgraduate	76	7.00	8.12	2.12	89.78			

#### 4.3. RISKY DRIVING SUBSCALE

#### 4.3.1.Gender differences

The Kolmogorov-Smirnov test for the assessment of normality of distributions indicates that the scores on the Risky Driving subscale deviate from a Gaussian distribution, both for men (z = .317, p < .001) and for women (z = .325, p < .001).

Men scored slightly higher on the risky sub-scale (average of 102.83) compared to women (average of 100.35), but these differences are not statistically significant, as indicated by the Mann-Whitney U test (p> 0.05).

Age differences

The Kolmogorov-Smirnov test for the assessment of normality of distributions indicates that the scores on the Risky Driving subscale deviate from a Gaussian distribution, for all age stages:

- For respondents aged 20-35 years (N = 49) we obtained z = .234, p < .001;
- For respondents aged 35-40 years (N = 42) we obtained z = .331, p < .001;
- For respondents aged 40-55 years (N = 86) we obtained z = .335, p < .001.

Descriptive statistics (mean ranks) show that adult men aged 35-40 tend to have lower levels of risky driving compared to other age groups, but these differences are not statistically significant, as the p value for the Kruskal-Wallis test H is greater than 0.05.

Gender	N	Median	Mean	SD	Mean ranks	Mann-Whitney U	Z	p
Masculine	177	12.00	13.53	3.22	102.83	2331.50	-0.229	.819
Feminine	27	12.00	13.04	1.68	100.35			



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## 4.3.2. Differences depending on the environment of origin

The Kolmogorov-Smirnov test for the assessment of normality of distributions indicates that the scores on Risky Driving subscales deviate from a Gaussian distribution, both in the case of men from rural areas (z=.311, p<.001) and in the case of men. come from the urban environment (z=.325, p<.001).

Rural men obtained scores similar to those in urban areas at the risky driving subscale, a conclusion also supported by the Mann-Whitney U test, for which we obtained a p > 0.05.

Area of living	N	Median	Mean	SD	Mean ranks	Mann- Whitney U	Z	p
Rural	46	12.00	13.63	3.07	88.29	2980.0	-0.036	.971
Urban	130	12.00	13.49	3.30	88.57	2,50.0	0.000	.,,,1

#### 4.3.3. Differences depending on socio-economic status

The Kolmogorov-Smirnov test for assessing the normality of distributions indicates that scores on Risky Driving subscales deviate from a Gaussian distribution in both men with a socioeconomic status below the average level in the economy (z = .378, p < .001) and in the case of men with a socio-economic status above the average in the economy (z = .336, p < .001). Men with a socio-economic level below the average obtained slightly higher scores at the risky driving subscale (average of 96.80 ranks) compared to men with a socio-economic level above the average (average of the ranks 85.76), but these differences are not statistically significant. , as indicated by the Mann-Whitney U test (p > 0.05).

Socio-economic status	N	Median	Mean	SD	Mean ranks	Mann- Whitney U	Z	p
Under medium level	52	12.00	13.98	3.33	96.80	2844.5	-1.471	.141
Above medium level	125	12.00	13.34	3.17	85.76	20.110	1.1,1	,,,,,

### 4.3.4. Differences depending on religion

The Kolmogorov-Smirnov test for the assessment of normality of distributions indicates that the scores on Risky Driving subscales deviate from a Gaussian distribution, both in the case of men who declare themselves Orthodox (z = .320, p < .001) and in the case of men who declares to have a different religious orientation (z = .315, p = .034).

Orthodox men scored lower on the risky driving subscale compared to men of other religions, but these differences are not statistically significant, as indicated by the Mann-Whitney U test (p > 0.05).

Religion	N	Median	Mean	SD	Mean ranks	Mann- Whitney U	Z	p	
Orthodox	170	12.00	13.51	3.24	88.71	545.5	-0.424	.672	
Other	7	12.00	14.00	3.056	96.14	2 .0.0	<u> </u>	.072	



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## 4.3.5 Differences depending on marital status

The Kolmogorov-Smirnov test for assessing the normality of distributions indicates that Aggressive Driving subscale scores deviate from a Gaussian distribution for all categories of marital status:

- For married men (N = 115) we obtained z = .330, p < .001;
- For unmarried men (N = 49) we obtained z = .283, p < .001;
- For divorced men (N = 11) we obtained z = .351, p < .001.

Descriptive statistics (mean ranks) show that divorced and married men tend to have slightly lower levels of risky driving compared to unmarried men, but these differences are not statistically significant, as the p value for the Kruskal-Wallis H test is greater than 0.05.

Marital status	N	Mediana	Mean	SD	Media rangurilor	Kruskal-Wallis H	df	p
married	115	12.00	13.57	3.58	85.77			
unmaried	49	12.00	13.49	2.59	94.05	1.252	2	.535
divorced	11	12.00	13.09	1.92	84.41			

## 4.3.6. Differences depending on the level of training

The Kolmogorov-Smirnov test for assessing the normality of distributions indicates that scores on risky Driving subscales deviate from a Gaussian distribution for all levels of training:

- For men with 10 grades or vocational school (N = 22) we obtained z = .284, p < .001;
- For men with high school or post-secondary school (N = 79) we obtained z = .352, p < .001;
- For men with university or postgraduate studies (N = 76) we obtained z = .308, p < .001.

Descriptive statistics (average ranks) show that men with high school / vocational school and those with university / postgraduate studies tend to have lower levels of risky driving compared to men with 10 grades or school, but these differences are not statistically significant is indicated and by the statistical test, as the p value for the Kruskal-Wallis H test is greater than 0.05.

Level of instruction	N	Median	Mean	SD	Mean ranks	Kruskal- Wallis H	df	p
10 grades or professional school	22	13.00	14.50	3.69	104.00			
Highschool or secondary highschool	79	12.00	13.42	3.73	84.89	3.035	2	.219
Bachelor or postgraduate	76	12.00	13.37	2.40	88.93			



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#### 5. CONCLUSIONS AND EDUCATIONAL IMPLICATIONS

The results indicate that:

- Divorced men tend to have lower levels of negative emotions and cognitions compared to married or unmarried men, but these differences are not statistically significant.
- Men with university or postgraduate studies tend to have lower levels of negative emotions and cognitions compared to other categories of men, but these differences are not statistically significant; divorced men tend to have slightly lower levels of aggressive driving compared to married or unmarried men, but these differences are not statistically significant.
- ✓ Men tend to have similar levels of aggressive driving regardless of their level of training
- ✓ Rural men obtained scores similar to those in urban areas at the risky driving subscale

Therefore the hypothesis is not confirmed and the level of aggressiveness does not seems to be correlated age, gender, religion, marital status, socio-economic status or level of instruction. Further attention should be thus given rather to anger as an internal trait regardless of these external variables. Nevertheless such results may be considered useful as a possible overcoming of the possible misjudgements and stereotypes that may arise encompassing these differences between people.

The present study aims at profiling the Romanian aggressive driver also for educational purpose. If psychologist may be provided with the profile of psychological driver and the predisposition of some to risky drivind according to age, marital status, religion, area of living and other demographic variables, they may shorten the time spent for evaluation and recommend counseling sessions for anger management for those identified with risky driving behavior. Nevertheless, other sound measures of dangerous driving are needed to understand differences and commonalties between aggression, negative cognitive/emotional driving, and risky driving. The study presents the DDDI results that might help psychologist in evaluating some variables that are part of the profile of the aggressive driver in Romania; we used it as a psychometric screening tool to select individuals who are prone to dangerous driving styles and who could benefit from cognitive-behaviour therapy (CBT)-type therapeutic intervention, at least in Romania. The educational implication of this study are that such types of interventions such as cognitive-behavioral interventions (e.g., relaxation, cognitive restructuring, and behavioral skill building) may be suggested after testing the drivers in order to reduce and maintain reductions of driving anger, aggressive anger expression, aggression, risky behavior, and general anger.



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