

The relation of psychological factors in committing traffic accidents by drivers

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Abstract:

The current research aims at identifying The relation of psychological factors in committing traffic accidents by drivers. The main issue of the research is the relation of some psychological factors (aggression, anxiety, psychological pressure, overconfidence), of drivers involved in traffic accidents.

To achieve this, we submitted a questionnaire that examines the relation of psychological factors affecting the behavior of drivers. We applied the research tool to a sample of 326 drivers. we concluded that there is a statistically significant positive correlation between the aggressive behavior, anxiety, psychological pressure, overconfidence, and the drivers' committing traffic accidents.

Keywords: traffic accidents; drivers; psychosocial factors.

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1. INTRODUCTION

Societies have witnessed tremendous developments across the ages as a result of the world's scientific revolutions over the past decades. and transport is the vital artery of societies given its economic and social development dimensions, It has become an important aspect of the social interaction of individuals and groups The more communities move forward, the more automated vehicles are used. traffic interaction has become an area of social interaction based on the use of the vehicle as a modern technique for controlling life's difficulties. But at the same time transportation has contributed to many traffic problems, Such as asphyxiation, traffic congestion and environmental pollution, multiple traffic regulations and road users' violations of safety rules and traffic accidents, The latter represents the most important and serious elements of the traffic problem in contemporary social life; By occupying high ranks of high risk to the entity of societies, the world records more than 1 million deaths from traffic accidents each year. Accidents are often caused by behaviors that are contrary to safe driving rules that drivers consciously and recognize as dangerous as they drive. These behaviors must be linked to forces influencing their incarnation, consisting of the impact of psychological factors that affect the driver.

Trying to understand and analyze driving behaviour is of the utmost importance. especially when addressing factors affecting driving behaviour, To that and, through this research, we sought to study the factors of traffic violations committed by drivers, which in one way or another leads to traffic accidents, by

highlighting the factors influencing drivers' behaviours and psychological factors.

1. Problematic:

After the Second World War, most of the world's countries experienced a significant increase in the number of vehicles, as a result of high per capita income and the increased need for mobility as the rate of economic development rises, which helped to rely heavily on the vehicle for various commutes, and traffic is the cultural facade of any country. Steady increase is noticed in the acquisition of individuals and organizations of motorized vehicles. where the number of vehicles, according to the latest estimates, for the year 2021 reached about 1.7 billion vehicles.

But reliance on the vehicle caused a number of problems, and it is no secret that the use of these vehicles is dangerous to individuals and funds, The creation of the vehicle even, if it left in the man a sense of the pleasure of scientific victory over the difficulties of travel And in the reduction in the amount of time, he turned this blessing into a curse that touched all members of society. and traffic problems have diverse images such as environmental pollution and traffic differences and their consequences on the delay of time and energy, Traffic accidents are one of the most significant urban problems facing all of the civilized and developing nations of the world, every day taking human lives and causing tragedies, according to the World Health Organization, about 1.25 million people die annually as a result of traffic accidents, and between 20 million and 50 million others suffer non-fatal injuries and many of them become disabled as a result, and it is no exaggeration to say that traffic

accidents in societies are competing with diseases and epidemics as causes of death, as well as economic losses affecting all States.

Statistics issued by the National Gendarmerie Command and the National Center for Road Prevention and Security for Traffic Accidents from 2003 to 2018 show that traffic accidents are estimated at 38 thousand per year. an average of 4 thousands dead and more than 55 wounded annually. About 3,000 persons with permanent disabilities, also statistics during 2018 indicated that the number of traffic accidents in Algeria was 22,991, with 3,310 dead and 32,570 wounded.

Statistical indicators show the seriousness of traffic accidents in Algeria, on the daily social life; It takes a heavy casualties and properties, targeting all segments of society without exception. Because digital indicators attribute traffic accidents specifically to the human factor, The problem from the social psychology point of views is primarily a social problem, It is based on the behaviour of the driver, which makes us think of the controlling forces that. Control the drivers' behaviour. Where psychological factors influence the driver's driving style, which manifests itself as interactive behaviors and responses, He commits irregularities which expose him and other road users to various serious traffic accidents.

The traffic problem is based on trying to analyse drivers' behaviour and investigate its features and dimensions from an understanding of the impact of the psychosocial conditions that from the driver behaviour. and reveal the mechanism of the impact of an individual's behaviour on the fabric of traffic

reality, which makes us think about analyzing the behaviours of the drivers to try to understand the different mechanisms of traffic accidents and to identify the various factors and variables affecting drivers' behaviours, through the foregoing, it is clear that the current research raises the general question as follows: What are the causes that affect the driver to commit traffic violations and road accidents ?

2. Study Questions: The study identifies the following general question : Is there a relation between psychological factors and drivers committing traffic violations and road accidents?

This question has a series of sub-questions :

- Is the behaviour of drivers who commit irregularities and traffic accidents characterized by aggression ?
- Does the driving anxiety that affects the driver contribute to unsafe behaviour leading to accidents ?
- Does the psychological pressure on the driver affect the appearance of unsafe behaviour leading to accidents ?
- Does the overconfidence factor play a role in drivers' committing irregularities and traffic accidents ?

3. Study Hypotheses : In the present study, we have relied on the following hypotheses :

- Psychological factors constituting the following dimensions : aggression, anxiety, psychological pressure, excessive confidence can affect drivers' behaviors by violating the Traffic Code while driving.

It can be formulated in a statistical manner as follows:

- There is a statistically significant correlation between aggressive behaviour and drivers' committing irregularities and traffic accidents.
- There is a statistically significant correlation between anxiety and drivers' committing irregularities and traffic accidents.
- There is a statistically significant positive correlation between psychological stress and drivers' committing irregularities and traffic accidents.
- There is a statistically significant correlation between overconfidence and drivers' committing irregularities and traffic accidents.

4.Othe aim of the study: The aim of the study is to achieve the following objectives:

- This study generally aims to reveal what traffic violations and accidents are, and The relation of psychological factors in committing traffic accidents by drivers.
- Highlight the main causes of the commission of the irregularities and traffic accidents and their social consequences as a result of a mistake committed by some members of society.
- Attempt to present some ways and preventive measures to reduce the increase of this phenomenon.

5. Study concepts:

Traffic accidents: traffic accidents are defined as "all accidents resulting in loss of life, body injury, loss of funds or all of that from using a vehicle". (السيف، 1986)

The traffic accident is also defined as: "All collisions that occur

on the roads, or on the open road for public traffic. One or several victims of the dead or injured may vary, and at least one vehicle is involved". (Commission économique pour l'Europe, 1998, p.133)

Procedurally : The traffic accident is an incident in which a driver causes loss of life or damage to property under certain circumstances, without prior intention or planning by the party or parties involved in the accident

Driver: "Everyone who drives a vehicle, including regular bikes, motorcycles, or controls dragging animals, riding and herds across the road".(وزارة العدل، 2002)

Procedurally : Driver is everyone who is legally qualified to drive the vehicle as stipulated in the Traffic Act, and in our current study the driver refers to the person driving the vehicle.

- **Aggression:** It is more a psychological feature than an act. It tends to harm others or destroy objects and properties , and it can be a means for a person to assert oneself through anti-other opposition. (Ficher, 2003, P10)

It is also defined as "intended behaviour that causes material or moral harm to the other or to damage his properties". (شعشوع، 2012)

Procedurally : aggression is a phenomenon inherent in the behaviour of many human beings, with factors and motives driven by it, some of which are endogenous origin, and others from the individual's external surroundings. The provisions of this dimension are intended to measure the degree of aggressive behaviour of drivers during driving.

Anxiety: Anxiety is defined as "an unpleasant vague sense of expectation of fear, motivation and stress, usually accompanied by some physical sensations, and comes in repeated seizures of the same individual. (غانمي، 2016)

It is "a natural reaction to seeing something frightening or dangerous, it is what an individual feels when he is in trouble or under psychological stress or when facing any danger of any kind, physical, psychological or mental". (قاشي، 2013)

Procedurally : It is a state of widespread and persistent tension due to the anticipation of an actual or symbolic threat that may occur, accompanied by vague drnd of fear and serious psychological symptoms, and this dimension is intended to measure drivers' degree of anxiety.

Psychological pressure : Psychological pressure is defined as a state of distress and discomfort, the composition of which involves many factors psychological, social and biological, such as adrenaline gland growth and feeling of frustration in an unexpected and critical situation, or lack of understanding by parents, friends or teachers. (قاشي، 2013)

Procedurally : Psychological pressure are a group of unpleasant influences that are assessed by an individual as superior to their own sources of adaptation that lead to an imbalance in an individual's psychological, physiological and physical functions. The provisions and this dimension is intended to measure the drivers psychological pressure degree.

Overconfidence : overconfidence is defined as « an individual's perception of his or her competence or skills and his

or her ability to deal effectively with the various situations to which he or she is exposed ». (الشريفة، 2016)

Procedurally : Overconfidence can also be defined as an overestimation of an individual's abilities and an illusion of immunity against adverse events. A driver breaks traffic rules carelessly with the dangers that may result, believing that he or she is immune from them. The provisions of this dimension is intended to measure the degree of overconfidence of drivers in traffic situations.

6.Theoretical background :

6.1 Factors and causes of traffic accidents :

To address the problem of traffic accidents, it is necessary to identify them and know its factors and causes in order to be able to solve it. Researchers have disagreed in identifying the uroot causes of car accidents on the road. Their views have varied in estimating the extent of responsibility that have been entrusted to the parties of a traffic accident : The driver, vehicle, road, and by reference to studies and statistics we find that man is the leading cause of traffic accidents because of the role he plays when dealing wrongly with the road or vehicle, where he represents about 85% of the causes of traffic accidents in most countries of the world. The human errors caused by the drivers are many and multiple, such as :

- Lack of respect for traffic law. Failure to respect these laws is the main factor in traffic accidents for all road users, especially the driver. (Association prévention routière, 2006, p.2)
- Health condition, which is a factor that has a significant impact

on the drivers, where safe driving requires a good health and psychological condition, whenever a good state of health is, it contributes to drivers' sense of security and confidence in their estimation while driving.

- Driving under the influence of alcohol or narcotic substances, where most studies and statistics indicate that among the most serious causes of accidents is driving under the influence of alcohol and narcotic substances.

- Psychological factors, which can be:

Aggression: The psychological factor is one of the root causes of traffic accidents judging from the aggression in humans from Freud's point of view accidents are like other accidental acts in which man can make, requires more than just physiological interpretations, that they have meaning and acceptance of interpretation, and that one can conclude the existence of motives and intentions reserved or suppressed and by the psychoanalysis

Arguing that aggression is an instinct, it explains an important aspect of the causes of the accidents. The incident resulting in harm to something could satisfy the aggressive motives towards the subject, as well as, The incident resulting in harm to a person or persons may satisfy the aggressive motives towards that or those persons. and, likewise, the incident resulting in damage to the same person may satisfy the person's aggressive motives towards himself, or may be called the need of self-punishment. (فرج طه، 1988)

Anxiety: There is a problem that is just as important as the

other factors which is anxiety, Often the individual has periods of anxiety during the driving process, Which generates stress and psychotic break, through which he feels distressed, so that Anxiety attacks have several manifestations, such as perplexity, frenzy and confusion, and these phenomena is reinforced in the driver's anxiety and the sense of imminent danger. Where he cannot make the right decision in the right place and this leads to a higher probability of error and consequently to traffic accidents. (2008، سالي)

Overconfidence : Self-confidence is an emotional characteristic that plays a key role in determining an individual's behaviours in different situations, as it is linked to the individual's positive and higher self-esteem, and which come from the individual's sense of security and psychological reassurance.

6.2 Its implications and effects : Traffic accidents is a serious phenomenon and result in includes many residues and effects :

- At the health level : includes the driver and other persons, whether passengers, users of other means of transport, pedestrians or others at the scene, who are injured, ranging from superficial, moderate or severe, to permanent disabilities.
- At the psychosocial level : Traffic problems are one of the most important challenges and difficulties facing the societies because of their extremely severe psychological effects on the individual, as psychological consequences are considered to be :

Among the most serious impacts on the driver , these accidents may cause some impairments and handicaps to the perpetrators of traffic accidents, which can disrupt all the functions and roles that the individual can do within the family or society, not to

mention impact on his confidence and self-esteem. (بوحارة، 2017)

One of its social effects is the loss of a family member and which may lead to the breakdown of the whole family and the collapse of its entity, as well as the loss among the society when the individual has a productive and effective role, not to mention the material damage to the family, which will affect family income, and the social suffering of widows and orphaned children, thereby increasing social problems in the affected families.

- At the economic level: road traffic accidents, and their damages, injuries and deaths constitute one of the most important obstacles to States' development. The gravity of traffic accidents lies in the numerous effects on the individual and society, including damage to public and private property, and in material losses estimated at millions annually, which burden the State and hamper development.

7. Study methodology and procedures :

1.7 Study curriculum: In the current study, we adopted the analytical descriptive approach to describe and diagnose the problem of research, describe drivers' traffic behaviours and link them to the factors leading to the commission of traffic violations and accidents. (Espace_réservé1)

2.7 Sample of the Study: The study sample consisted of 326 drivers who committed traffic accidents, chosen intentionally from different areas. We distributed 380 copies of the scale. Finally, 54 retrieved copies were cancelled because they could

not be processed without answers to certain items, or the general information of the subjects was not filled out. Table (01) shows some characteristics of the study sample individuals.

Table No. (01) shows the characteristics of the study sample

Properties	Age						Sex		Marital status			
Categories	18-20	21-30	31-40	41-50	51-60	Over 40	Female	Male	Single	Married	Divorced	Widower
Frequencies	02	149	65	59	43	8	118	208	152	150	18	6
Percentages	0.61	45.70	19.93	18.09	13.19	2.45	36.19	63.80	46.62	46.01	5.52	1.84

7.3 Study Tool :

1.3.7 Study tool description : After collecting various existing metrics and tests to measure the psychological factors affecting drivers' behaviors, a questionnaire has been designed in its preliminary form which included 41 items, In addition to a set of questions about the personal information of subjects and a clear way of answering each phrase was developed so that the driver answered by selecting one of the five proposed answers to him, Where scores are given (1,2,3,4,5) in case of positive answers and vice versa in the case of negative phrases, by adopting five alternatives to the answer : Strongly agree (5) ; Agree (4) Neither agree nor disagree(3); Disagree (2); Strongly disagree (1).

7.4 Psychometric properties of study tool :

The validity of the scale : To verify the validity of the scale, we showed it in its preliminary form to a group of university professors specializing in psychology and sociology at the 8 May

1945 University Guelma, the arbitrators agreed on the validity of the test, asserting that the test was measurable and easy to install and formulate its items in a simple language also it is suitable for the algerian environment, the dimensions and items of the scale were agreed to be 98% honest.

We also calculated the validity of internal consistency by calculating the connection of each item to the overall degree of the dimension to which it belongs, as well as the linkage of the dimension to the overall degree of the scale. The correlations of the dimensions of the scale ranged between (0.706 and 0.871), all of which are statistically significant at the level of indication (0.01).

Scale stability : We used the Alpha Cronbach coefficient method, after applying the scale to a sample survey of 55 drivers, and the results were as shown in the next table :

Table No. (02) : Showing the value of alfacronbach transactions for scale dimensions and for the scale as a whole

From the previous table, it is noted that all alphacronbach coefficient values in the scale were limited between (0.756 and 0.905), and the scale as a whole constant was estimated at (0.951) which are all

Dimensions	Cronbach's alpha value
Aggressive	0.879
Anxiety	0.905
Psychological pressure	0.756
Overconfidence	0.760
The scale as a whole	0.951

statistically significant values, making the scale highly stable, and its results can therefore be trusted because they are highly stable and reliable.

7.5 Statistical methods used in the research :

We used a range of statistical methods in the current study : repetitions and percentages, the Pearson correlation coefficient.

8. Presentation and discussion of results :

1.8 Presentation of study results :

Presentation and analysis of the results of the aggressive variable : The hypothesis states that there is a positive and statistically significant correlation between aggressive behaviour and drivers' commission of traffic accidents.

Table No. (03) shows the correlation coefficient between the aggressive variable and the commission of traffic accidents in the search sample subjects.

Variables	Sample	Correlation coefficient	Statistical significance	Decision
Aggressive behaviour	326	.352	.000	Statistically significant at the 0.01 level
Commission of accidents				

Through Table No. (03) we note that the correlation coefficient between aggressive behaviour and the number of incidents committed has reached 0.352, a function at 0.01, indicating a statistically significant positive correlation between aggressive

behaviour and the number of incidents committed, and statistical indication 0.000 is below 0.01, which indicates a strong correlation between the two variables.

This finding shows that drivers whose behaviour is characterized by aggression are most likely to commit traffic accidents, owing to a breach of traffic laws through recklessness during driving, parade driving in front of others, and arguments with other road users, thus disregarding safety rules and laws, may cause traffic accidents for the driver and other road users.

Presentation and analysis of the results of the anxiety variable : The hypothesis states that there is a positive and statistically significant correlation between anxiety and drivers' commission traffic accidents.

Table No. (04) shows the correlation coefficient between the anxiety variable and the committing of traffic accidents in the search sample subjects

Variables	Sample	Correlation coefficient	Statistical significance	Decision
Anxiety	326	.294	.000	Statistically significant at the 0.01 level
Commission of accidents				

Table (04) shows us that the value of the correlation coefficient between the anxiety factor and the number of incidents committed is 0.294, a function at the 0.01 level, indicating a statistically significant correlation between anxiety and the

number of incidents committed, and the statistical indication 0.000 is less than 0.01, which indicates a strong correlation between the two variables.

The result shows that drivers do not respect traffic laws as a result of anxiety and concern is a precondition for a non-safe driving, as it affects drivers' self-control and reactions while driving. The driver in a state of anxiety is impatient with some of the obstacles encountered on the way, Which requires him to be stoic and patient, he loses the ability to concentrate, and his behaviour is characterized by impulsivity and doing reckless actions. Which negatively affects his way of driving and prompts him to commit violations while driving.

Presentation and analysis of the results of the psychological pressure variable : The hypothesis states that there is a positive and statistically significant correlation between psychological pressure and drivers' commission of traffic accidents.

Table No. (05) shows the correlation coefficient between the psychological pressure variable and the committing of traffic accidents in the search sample subjects.

Variables	Sample	Correlation coefficient	Statistical significance	Decision
Psychological pressure	326	.355	.000	Statistically significant at the 0.01 level
Commission of accidents				

Table No. 05 shows that the correlation coefficient between psychological pressure factor and the number of incidents

committed is 0.355, a function at 0.01, indicating a statistically significant correlation between anxiety and the number of incidents committed, and statistical indication 0.000 is less than 0.01, which indicates a strong correlation between the two variables.

Analysis of study results shows that drivers with psychological stress are the most likely to commit traffic violations and accidents. Driving requires a high level of attention and focus on what's going on the road. So that the driver can understand and deal with situations that can suddenly confront him and may be subjected to different levels of stress, whether psychological, professional or social, As the nature of the work, the accuracy of the appointments, the oscillation of the hours of sleep and fatigue, and the reflection on the health of the driver, Witold has a negative psychological state that encourages the emergence of negative reactions, excessive irritation and persistent anxiety. and driving under the influence of psychological stress paves the way for errors that could have serious consequences for the driver and other road users.

Presentation and analysis of findings related to the overconfidence variable: the hypothesis states that there is a positive and statistically significant correlation between overconfidence and drivers' commission traffic accidents.

Table No. (06) shows the correlation coefficient between the variable of overconfidence and the commission of traffic accidents in the search sample subjects

Variables	Sample	Correlation coefficient	Statistical significance	Decision
Overconfidence	326	.262	.000	Statistically significant at the 0.01 level
Commission of accidents				

Table 06 shows that the correlation coefficient between overconfidence and the number of accidents committed is 0.262, a function of 0.01, indicating a statistically significant correlation between excessive confidence in drivers and the number of accidents committed, and statistical indication 0.000 is less than 0.01, which indicates a strong correlation between variables.

This result demonstrates the impact of excessive confidence on drivers' behaviours, as a number of drivers conduct behaviours that are contrary to traffic safety rules because of their excessive confidence in the vehicle's strength and ability to avoid road hazards and deal with dangerous situations that they may be exposed to during their course, which can cause accidents.

2.8 Discussion and interpretation of the study's findings :

Through statistical findings, we have found a statistically positive correlation between drivers' aggressive behaviour and traffic accidents. Drivers with a high degree of aggression can be more vulnerable to accidents by being non-compliant with traffic law procedures, They show negative and violent feelings

and emotions, as well as behaviour that signifies tantrums in driving, for example, during traffic congestion. We see them moaning because of impatience and lack of respect for traffic signals and rules. They express their anger using verbal expressions or movements that are hostile, also by fast and reckless driving. Perhaps one explanation of the aggressive behaviour of drivers is the study (Saaduddin Boutabal, 2012), where he considered that hostile behaviour while driving was a distinctive personal feature, which distinguishes drivers who commit traffic accidents from others in which they may consider driving as compensation for a lasting sense of inferiority, These are overly sensitive to other drivers and all road users. And contribute to exposing themselves and others to dangerous situations while driving that may end their lives, They also attribute the error to other road users and always consider themselves victims. Aggression was also ranked third in terms of the psychological causes of the incidents in Algeria and in the study of (Abdelrahman El Ouafi, 2010). All this may be due to the psychological formation caused by the socialization of drivers. The socialization of individuals in our society rejects the peaceful or the victim model, and it is thus provided at early stages through family upbringing with the elements of hostile interaction and violence towards others for the most basic misunderstandings that can occur between them. This justifies the many manifestations of violence and aggression in traffic situations.

The current study also revealed through statistical findings a statistically positive link between drivers' anxiety and traffic accidents. Often the individual has periods of anxiety during the

driving process, Which creates stress and psychological distress, through which he feels upset, Anxiety is a threat to the safe driving, affecting drivers' poise and reactions. Anxiety reflects a complex emotional state, manifested by the driver's various actions, It may be an objective concern as a result of the stressful situations faced by drivers like congestion, bad road conditions, or just an anxiety as a result of the psychological and social pressures of the driver, many studies have demonstrated the relationship of anxiety to collisions, The driver's stress appears physically at increased heart rate and high blood pressure and a confused vision, a feeling of mood turmoil, loss of control and a behavioural inability to concentrate. Also the driver's behaviour is characterized by impulsivity and reckless actions, Anxiety while driving a negative impact the driver's behaviour", leading to errors and breaches of laws that expose him and other road users to traffic accidents.

Results regarding the psychological pressure factor shows an existence of a statistically positive relationship between drivers' psychological pressure level and traffic accidents where members of the sample were characterized by a high level of psychological stress, due to psychosocial or professional reasons, and driving is one of the tasks that require focus, awareness, rapid response and control. There are some cases where driving a vehicle is considered a danger to the driver and to other road users. This is the lack of attention, which may be due to physical fatigue.

This was agreed upon by several studies, such as (Abdul Rahman El Ouafi,2010), where the psychological pressure factor ranked a high proportion of the psychological factors leading to a

traffic accident, because it makes the driver lose his psychological and mental balance, resulting in a state of self-compatibility that makes him indifferent to other external factors. Driving a car is full of stressful situations such as in traffic congestion, especially in cities. A driver must bear to share the road with other drivers and not feel distressed by them, which increases his psychological stress, and the driver who cannot withstand these pressures may be reflected in his driving behaviour resulting in accidents.

Findings regarding the excessive confidence factor showed a statistically significant correlation between drivers' excessive confidence and traffic accidents, as members of the sample were characterized by a high level of overconfidence, which was consistent with the findings of a study (Svenson, 1980), the results of which were that most individuals considered themselves to be more skilled at driving, to be more safe-driving than the average, and to be less at facing risks than the others.

This is what psychologist call defensive optimism. This optimism is implicated in all situations of self-harm exposure, from smoking to death risks such as traffic accidents. This optimism is a person's belief that bad things and dangers face others and do not personally face him, thereby giving him a boldness and confidence that increase his exposure to risks.

Conclusion :

Based on our findings from the study, traffic accidents are mostly caused by traffic violations committed by some motorists. Its results influenced a number of members of the community, as psychological factors play a role in determining

drivers' behaviour in different driving situations, This may have a negative impact on responding to the requirements of the situation and safe driving and thus the situation leads to irregularities that may result in traffic accidents of varying gravity. Psychological factors (such as aggression, anxiety, psychological stress, overconfidence) contribute negative affects on an individual's psychological and physiological balance, which make him ignoring the contents of traffic signals and laws, that have been established primarily as preventive measures for road users, and inactive response to traffic situation requirements, often resulting in traffic accidents.

Bibliography List :

1. Books :

- 1- Fischer, G. (2003). *Psychologie des violences sociales*. Paris: Francis lefebrre.

2. Theses:

- 2- Dieffenbacher , J.L. Tracy Richerds, L. (2002). *Angers, Agression and risky behaviours*, Colorado State University.

3. Printed article:

- 3- Commission économique pour l'Europe. (1998). *Statistique des accidents de la circulation routière en Europe et en Amérique du nord*. Nations Unies, Vol 43, New York.

4. Online journal:

- 4- Shabila, N.P. Kamaran, H.I. Abubakir, M.S. Alhadithi, T.S. (2015). *Risky Driving Behaviors among Medical Students*

in Erbil- Iraq. *Sultan Qaboos Universit Med J*, 15(3), 390-397, Retrieved from/ www.ncbi.nlm.nih.gov/pmc

- 5- Ulleberg, P.R. (2003). Personality Attitudes and Risk Perception as Predictors of risky driving behavior among young drivers. *Safety Science Norway*, 14, 427-443, Retrieved from/ www.sciencedirect.com/science/article

5. Documents:

6. Association prévention routière. (2006). *Les accidents de la route, support pédagogique pour les études de médecine*. Paris.

Arabic references:

1- الكتب:

- 1- السيف، ع.ج. (1986). *تطور أساليب تنظيم إدارة المرور*. ط2. الرياض: مطابع الاشعاع.
- 2- الوافي، ع.ح. (2010). *حوادث السياقة أسبابها والوقاية منها بناء الفرد لسياقة أفضل*. الجزائر: دار هومة للطباعة والنشر والتوزيع.
- 3- فرج، ط. ع. (1988). *علم النفس الصناعي والتنظيمي*. ط6. القاهرة: دار المعارف.
- 2- المذكرات والرسائل الجامعية:

- 4- بوطبال، س. د. (2012). دور سمات الشخصية والاتجاهات النفسية في ارتكاب المخالفات المرورية لدى السائقين تحليل نفسي اجتماعي لسلوك قيادة السيارات (أطروحة دكتوراه). كلية العلوم الإنسانية والاجتماعية، جامعة الجزائر 2.
- 5- سالي، م. (2008). حوادث المرور في الجزائر أسبابها وسبل الوقاية منها، دراسة ميدانية بالطريق الوطني السريع رقم 1 (رسالة ماجستير). كلية العلوم الاجتماعية والإنسانية، جامعة الجزائر 2.
- 6- شعشوع، ع.ق. (2012). سلم الحاجات والسلوك العدواني عند الجانحين والمستهدفين للجنوح والعاديين (رسالة دكتوراه). كلية العلوم الاجتماعية، جامعة وهران.
- 3- المقالات العلمية:
- 7- الشريدة، أ. (2016). الثقة بالنفس والتوافق مع الحياة الجامعية كمنبئات بالرضا عن الحياة لدى طالبات كلية التربية جامعة القصيم. دراسات عربية في التربية وعلم النفس. ع 76، 289-302. تم تحميل الملف من academia-arabia.com.
- 8- بوحارة، ه. (2017). دراسة لاسباب ارتكاب الحوادث المرورية دراسة ميدانية من وجهة نظر سائقي سيارات الأجرة. مجلة دراسات وأبحاث. 27(9)، 344-359. تم تحميل الملف من www.asjp.cerist.dz.
- 4- المحاضرات:
- 9- حافري، ز. (2016). مطبوعة الدعم البيداغوجي في مقياس علم النفس المرضي. كلية العلوم الإنسانية والاجتماعية. جامعة سطيف.

5- الملتقيات والمؤتمرات العلمية:

- 10- قاشي، م. (25/24، أبريل، 2013). الأسباب النفسية لحوادث المرور من وجهة نظر سائقي مركبات الوزن الثقيل. بحث مقدم في الملتقى الوطني الأول حول "حوادث المرور بين مستعملي الطريق وتنظيم المرور" جامعة الحاج لخضر باتنة، الجزائر.

6- الوثائق الرسمية

- 11- وزارة العدل. (2002). قانون المرور. د.و.أ.ت، ط1. الجزائر.