

MLS PSYCHOLOGY RESEARCH

<https://www.mlsjournals.com/Psychology-Research-Journal>

ISSN: 2605-5295



How to cite this article:

Vicente, M. R. (2021). Correlación entre conductas agresivas y patrones de personalidad en consumo de sustancias. *MLS Psychology Research* 4 (2), 7-19. doi: 10.33000/mlspr.v4i2.626.

CORRELATION BETWEEN AGGRESSIVE BEHAVIORS AND PERSONALITY PATTERNS IN SUBSTANCE USE

Manon Rousselle Vincent

European University of the Atlantic (Spain)

m.rousselle.rousselle@gmail.com · <https://orcid.org/0000-0002-1641-9661>

Abstract. The strong social impact of drug use is a consequence of its impact on accidents, risky driving, aggressive behavior, risks of sexual abuse, overdose and mental disorders associated with substance use such as depression, anxiety, schizophrenia and personality disorders. The young age at which alcohol and other substances such as hashish, cannabis and cocaine are first consumed, and the symptoms that constitute the negative consequences of consumption at cognitive, somatic and behavioral levels, corroborate the need to carry out research in this field, taking into account different relevant variables (Graña, Muñoz & Navas, In press). The present research aims to analyze the relationship between the consumption of alcohol, cocaine, cannabis and hashish with the main personality factors and aggressive behaviors both at the intrafamilial level, as well as intimate partner violence and the expression of anger at the wheel. At the same time, personality factors are thought to be associated with the aggressive behavior of users in the general population. In order to test this relationship, a sample of general population users of some of these substances was selected in this research. The results obtained show that there is no correlation between the consumption of these substances with either personality factors or aggressive behavior in the different contexts. This result may be due to the small sample size or to the fact that we did not work with a clinical population sample.

Key words: Substance use, aggressive behavior, personality factors.

CORRELACIÓN ENTRE CONDUCTAS AGRESIVAS Y PATRONES DE PERSONALIDAD EN CONSUMO DE SUSTANCIAS

Resumen. El fuerte impacto social que representa el consumo de drogas es a consecuencia de su repercusión en accidentes, conducción de riesgo, comportamientos agresivos, riesgos de abuso sexual, sobredosis y trastornos mentales asociados al consumo de sustancias como son la depresión, la ansiedad, la esquizofrenia y los trastornos de personalidad. La corta edad con la que se empieza a consumir alcohol y otras sustancias como hachís, cannabis y cocaína, y los síntomas que constituyen las consecuencias negativas del consumo a nivel cognitivo, somático y comportamental, corroboran la necesidad de realizar investigaciones en este ámbito teniendo en cuenta diferentes variables relevantes (Graña, Muñoz & Navas, In press). La presente investigación tiene el objetivo de analizar la relación entre el consumo de alcohol, cocaína, cannabis y hachís con los principales factores de la personalidad y conductas agresivas tanto a nivel intrafamiliar, como la violencia en pareja y la expresión de la ira al volante. Al mismo tiempo se cree que, los factores de personalidad estarían asociados al comportamiento agresivo de las

personas consumidoras en población general. Para comprobar esta relación, en esta investigación se ha seleccionado una muestra de población general consumidora de alguna de estas sustancias. Los resultados que se obtuvieron muestran que no existe correlación entre el consumo de estas sustancias ni con factores de personalidad ni con conductas agresivas en los diferentes contextos. Este resultado puede ser debido a la escasez del número de la muestra o bien debido a que no se trabajó con una muestra de población clínica.

Palabras clave: Consumo de sustancias, conductas agresivas, factores de personalidad.

Introduction

Numerous empirical evidence corroborates the relationship between certain factors or personality traits (Impulsivity, Extroversion, Neuroticism, Openness, Sensation Seeking, among others) and drug use (Torres, García, Muñoz, Fernández-Palacios & Llopis, 1996). A study (Dembinska-Krajewska & Rybakowsky, In press), based on the Five Factor model analyzed the personality profiles of both users and non-users of substances (tobacco, cannabis, cocaine, and heroin). The results indicated that cocaine users scored higher than non-users on the Neuroticism personality factor and lower on the Responsibility factor. For cannabis, users scored higher on Openness and lower on the Agreeableness and Responsibility factors than non-users. Another study that confirms what was obtained in the previous one is the one by Allen and Holder (2013) because the results showed that people who obtained a lower percentage in both the Agreeableness and Responsibility factors show a higher predisposition to be cannabis users.

In one study it was shown that emotionally unstable subjects with a greater tendency to Neuroticism and Anxiety were more predisposed to the use of psychodepressant drugs, such as alcohol and anxiolytics. However, subjects with a high score in the Extraversion factor, with a tendency to impulsivity and psychopathic traits, would be more predisposed to the use of tobacco, cannabis, and cocaine (Fidel, Roncero & Casas, 2004).

Currently, it is known that personality interacts with a variety of biological, psychological, and environmental factors, which together delimit the individual response to substance use. On the one hand, the existence of patients with different personality traits who use different substances and, on the other hand, the existence of substance users with different personality disorders, which is a major impediment in determining the direction of the cause and effect relationship (Mangas, 2015).

With regard to aggressive behavior and drug use, it is difficult to consider them in isolation, as the negative consequences of drug use affect both the psychological and physical level but also behavioral.

Aggressive behaviors that lead to violence appear more frequently in substance users, finding a significant relationship between these aggressive behaviors and the use of alcohol, marijuana, cocaine, and other psychoactive substances (Rodríguez, Fernández, Hernández & Ramírez, 2006).

Research confirms that drug use and violence form a bidirectional feedback simultaneously as it has been shown that users are more likely to use aggression (Florenzano, Valdes, Serrano, Rodríguez & Roizblat, 2001). An example of this is, according to Mc Whinter & Florenzano (1998), that young people who habitually consume substances are more likely to engage in aggressive behaviors, so it is suggested that drug consumption is directly related to the aggressive world. This is reinforced by the idea pointed out by the authors Méndez and

Cerezo (2010), corroborating that there is a relationship between certain dysfunctional behaviors and substance use.

More specifically, a study by Harruf, Franciso, Elkins, Phillips, and Fernandez (1994), cited in Delgado (1994), showed that high doses of cocaine could lead to assaults and homicides. Often a combination of cocaine and alcohol consumption takes place, which results in the latter enhancing the effects of the former. To confirm this relationship between alcoholics and homicides, it should be noted that the reduction in murders that has been found in New York City is due to a decrease in cocaine use. Likewise, the combination of cocaine and alcohol causes the moment of euphoria and the sensation of well-being to be prolonged among its consumers; with a high percentage of aggressive and criminal behavior being found in these subjects (Graña, Muñoz & Navas, In press).

In the case of cannabis use, there are several cognitive and behavioral consequences. The most relevant behavioral symptoms could be: a) social isolation; b) alteration of interpersonal relationships due to increased aggression and hostility; c) decreased inhibitions; d) criminal behavior, such as driving under the influence of drugs (Nadal, 2008).

With respect to aggressive behaviors and drugs in the family context, it should be emphasized that intrafamilial abuse should be studied from an ecological perspective in which the different contexts in which people develop are taken into account, since all of them directly or indirectly affect their behavior. Therefore, the use of drugs or alcohol is considered by consumers as a lifestyle to improve their mood; however, it is a lifestyle that can generate emotional and mental disorders, which encourages aggressive behavior (Salazar, 2008).

The rate of aggressors, who show a high consumption of alcohol, is between 50% and 60%. With respect to the consumption of illegal drugs, the average has been found to be 20%. Consumption is more a precipitating factor than a causal factor of intimate partner violence (Arteaga, Fernández-Montalvo & López-Goñi, 2012).

It is highlighted that some authors come to consider that 45% of consumers arrested for alleged crimes within the family nucleus present personality disorders (Ziberman, Yadid, Efrati, Neumark & Rassovsky, 2018).

When we talk about the influence of drugs on aggressive driving behavior, first of all, we must differentiate between aggressive behavior and risk behavior. Aggressive behavior is characterized by intentionally causing physical or psychological harm, as opposed to risk behavior, although risk-taking behavior may cause harm indirectly. Depending on the person's goal, a behavior can be both risky and aggressive (Herrero-Fernández, Fonseca-Baeza & Pla-Sancho, 2014).

Substance use could be considered a risky behavior, as it causes a series of consequences that alter drivers' capabilities.

Human error is the main factor in two out of three traffic accidents. There are multiple causes that influence this factor, such as the consumption of psychoactive substances. The latest study on the prevalence of psychoactive substance use conducted by the Directorate General of Traffic concluded that 12% of Spaniards have consumed an illegal drug and/or alcohol before driving (EDADES, 2016).

Another influential element in the human factor is aggressive behavior or anger in driving. According to the study conducted by Cook (1996), it is stated that aggressiveness at the wheel is much more frequent than driving under the influence of alcohol.

There are a number of factors that determine aggressive driving behavior, such as cognitive, psychophysiological, emotional, environmental... Which can be altered by substance

use. Cocaine alters behavior by increasing the impulsivity of the consumer and even making him aggressive towards other drivers (Mihelj, Kos & Sedlar, 2018). It also causes an increase in traffic violations, thus making driving more dangerous (Ray, Fought & Decker, 1992).

In another study, it has been observed that regular alcohol consumption increases the predictive ability of rule violations with respect to personality variables and road rage (Valero, 2009).

Consequently, driving after drinking alcohol causes 40% of road accidents with fatalities, 15-35% of accidents causing serious injuries, and 10% of accidents with minor consequences. This should not ignore other psychoactive substances that also impair the psychophysiological conditions necessary for proper driving. Recent research has concluded that 10% of deaths in road accidents could be due to driving under the influence of illegal substances (Álvarez & Del Río, 1994).

Therefore, after reviewing the literature, the main objective of this study was to analyze the correlation between personality variables such as Neuroticism, Extraversion, Agreeableness, Openness, and Responsibility, and aggressive behaviors in different contexts (intrafamily and driving) with respect to substance use in the general population. This objective has been divided into sub-objectives or more specific objectives: a) to relate the most frequent personality patterns or traits with both alcohol consumption and psychoactive substance use; b) to relate aggressive behaviors such as driving anger, intimate partner violence, intrafamily violence, and anger as a trait-state, with alcohol consumption and psychoactive substance use; c) to relate the main personality factors with the variables that measure aggressive behavior in the general population of substance use.

We start from two hypotheses, which we intend to analyze:

"There is a significant correlation between alcohol consumption with the five personality dimensions (Neuroticism, Extraversion, Openness, Agreeableness, and Responsibility) and aggressive behaviors, as well as the consumption of psychoactive substances (cannabis, hashish, and cocaine) with these personality dimensions and aggressive behaviors."

"There is a significant correlation between personality factors such as Neuroticism, Extraversion, Openness, Agreeableness, and Responsibility, with a series of aggressive behaviors in substance use (alcohol, cannabis, hashish, and marijuana), such as intrafamily violence (violent interpersonal conflicts), the expression of anger experienced while driving, intimate partner violence, and the expression of anger as a trait-state."

Method

Participants

The research sample consisted of a total of 20 volunteers from the general population, with an average age of 37.35 years. The sample has been divided into 10 female and 10 male subjects. The inclusion and exclusion criteria for the selection of the sample was that all of them had to be habitual drivers, that is, they had to drive at least once a day, and that they had to consume alcohol at least once a week.

An information sheet was filled out by the subjects in the sample, in which the inclusion requirements appeared. They were asked if they consumed alcohol or any other substance such as cocaine, cannabis, or hashish. Alcohol consumption, being a requirement to be part of the

sample, was present in practically all the subjects. The consumption of other substances is also present, being 40% of people who do not consume cocaine, cannabis, or hashish. Regarding the frequency of cannabis consumption, the percentage obtained is 20% of monthly consumption. On the other hand, both in cocaine and hashish consumption the percentage is 15% of monthly consumption. Finally, the percentage of people who consume more than one of these substances is 10% monthly.

With respect to the asymmetric distribution, on the one hand, in the variable "Alcohol" a 1.05 was obtained and, on the other hand, in the variable "Quantity of cocaine, cannabis, and hashish consumption" a 1.67 was obtained. These results lead to the conclusion that both variables show a positive asymmetric distribution, since being greater than 0 the tail of the distribution points to the right, which indicates that the data on the consumption of both psychoactive substances and alcohol are usually asymmetric in this way: The majority of people in the general population in the study conducted consume relatively little, while fewer and fewer people consume large amounts. This statistical test has been carried out to verify that, indeed, the sample does not follow a normalized distribution, since the general population and not the drug dependent population tend to consume small or scarce amounts, which, as will be discussed later, causes little or no significant results to be obtained.

Finally, with respect to the years of driving, the mean obtained is 16.95 and the standard deviation is 13.15.

Measuring instruments

The internal consistency indices of the following scales (Cronbach's α) correspond to the data of the present research.

State Trait Anger Expression Inventory (STAXI-2). The Spanish adaptation of the STAXI-2 (Miguel-Tobal, et al., 2001) was used in the present study. In its revised form, the STAXI-2 includes an Anger State scale with three factors: Emotional-Feelings, Verbal, Physical. Sn Anger Trait scale with two factors: Temperament, Reaction. Snd an Anger Expression scale with four factors: Internalization or Internal Anger, Externalization or Anger Directed at Others, Control of Internal Anger, External Control of Anger Directed at Others. The overall internal consistency of the instrument items was an $\alpha = .83$. The response style is based on a 4-point Likert-type scale (1 = Almost Never; 4 = Almost Always).

The instrument used is the Spanish version of FACES-IV (Martínez-Pampliega, Merino, Iriarte & Olson, 2017). It integrates 5 fundamental dimensions for the clinical family approach: Cohesion, Flexibility, Detachment, Chaos, Rigidity, Attachment. The internal consistency of the instrument as a whole was $\alpha = .41$. It is composed of 42 items. It is a self-report questionnaire that is scored through a Likert-type scale ranging from 1 (Strongly disagree) to 5 (Strongly agree).

Neo-ffi, an abbreviated version of the original Neo-Pi-R instrument (Costa & McCrae, 1999), published in Spanish by Cordero, Pamos, & Seisdedos (2008). In the abbreviated version used in the research, the main personality factors are assessed: Neuroticism, Extraversion, Openness to experience, Agreeableness, Responsibility. The internal consistency of the instrument, as a whole, was $\alpha = .76$. It is a questionnaire composed of 60 items, which must be answered indicating the degree of agreement: 0 total disagreement - 4 total agreement.

Driving Anger Expression Inventory (DAX). The Spanish adapted version (Herrero-Fernández, 2011) was used, composed of 50 items and a 4-point Likert response style (1=Almost never; 2=Almost always) that evaluates five modes of expression of anger at the wheel: Verbal Expression, Physical Expression, Expression by means of the Vehicle, Displaced

Expression, Adaptive-Constructive Expression. The internal consistency obtained from all DAX items in the present research was $\alpha = .91$.

Conflict Tactics Scale, Spanish version (Loinaz, Echeburúa, Ortiz-Tallo & Amor, 2012). It evaluates violent and non-violent interpersonal conflicts between partners through 5 dimensions: Negotiation; Psychological Aggression; Physical Aggression; Sexual Coercion; Harm or Injury. It consists of 39 bidirectional items for the aggressor and for the victim with a Likert-type response format. For this research, only the frequency of the 5 dimensions was used unidirectionally, that is, only for the aggressor. The items used in this research, those referring to the aggressor, showed an internal consistency of $\alpha = .81$.

Procedure

The first step was to contact the selected sample. They were provided with an informed consent in which the participants had the opportunity to know what the research consisted of, the purpose of the data that was going to be obtained, and they were completely free to give their consent or not. It is important to highlight the importance of explaining to users at this point that the research was completely anonymous.

Appointments were then made with each member of the general population sample. Once the appointments were made, the evaluations were carried out individually. First, the Neo-ffi instrument was applied to assess the main personality factors of the users. Then, the self-applied questionnaires related to aggressive behavior (DAX, STAXI-2, and FACES-IV) were administered. Finally, an instrument was applied to measure intrafamily violence, specifically intimate partner violence by means of the Conflict Tactics Scale.

Once all the data from each instrument had been collected, they were corrected so that the data and variables could later be inserted into the SPSS program.

Data design and analysis

The present study consists of a quantitative correlational research with the aim of establishing a statistical relationship between two variables. In this case, the possible correlation between personality traits and aggressive behaviors with substance use is investigated. The collection of the necessary information to carry out the statistics has been obtained through a series of self-reports.

To carry out the data analysis, the statistical package SPSS was used, which allows to obtain information from the different instruments applied in the research and to carry out an analysis and interpretation.

Firstly, Spearman's Correlation Coefficient, ρ (rho), was used to correlate, on the one hand, alcohol consumption with the variables of the instruments used and, on the other hand, the consumption of psychoactive substances (cocaine, cannabis, and hashish) with the variables of each instrument. This non-parametric statistic has been used since the variables of alcohol and substance use have been measured under an ordinal variable.

Secondly, we have also worked with Pearson's correlation analysis (r), which is a parametric test. With this statistic, correlations were made between the personality variables of the Neo-ffi and the aggressive behavior variables of the remaining questionnaires. In this correlation, only those variables of the instruments that measured aggressive behavior were selected in order to relate personality traits with aggressive behavior in the general population of substance users.

This analysis assumes that the variables follow a normal distribution, so before using this statistic a descriptive test was carried out to determine whether the variables followed a normal distribution (Gaussian bell).

Results

First, we proceed to summarize the main results obtained in the non-parametric Spearman's Correlation test.

With respect to the personality factors of the instrument used, on the one hand, in general terms the results show that there is no positive significance between alcohol consumption and personality factors. It is concluded that the amount of alcohol consumption, in this case daily, is independent of personality traits or factors in people. On the other hand, a significant personality factor with respect to substance consumption, the Extraversion factor, stands out. Showing the existence of a weak linear association between the variables of substance use and the extraversion dimension. With the rest of the factors, it should be noted that no significant relationship is found. However, it is observed that all the personality variables of the instrument, except Kindness and Responsibility, show a tendency to correlate positively with substance use.

In addition, through this statistic, we correlated, on the one hand, alcohol consumption with state-trait anger expression (Staxi-2 variables) and, on the other hand, the consumption of psychoactive substances with these same variables. With respect to alcohol consumption, it is concluded that there is no significant relationship between the consumption of this substance and the anger variables measured by the instrument, that is, anger as a state, as a trait, and as an expression. However, with regard to the consumption of psychoactive substances, three variables are found to show a positive level of significance. First, temper as a trait and reaction as a trait indicate a relationship with the variable of psychoactive substance use. Secondly, external control of anger, within the variable expression, indicates a slight level of significance with respect to substance use. Despite the fact that the rest of the variables of the instrument that measure anger do not show an existing relationship with substance use; it is noteworthy that all the variables of the instrument with the substance use variable (cocaine, hashish, and cannabis) indicate a positive linear correlation.

In the correlations between alcohol consumption and psychoactive substance use and intimate partner violence, no significant relationship was found. Related to this, it should be noted that in the Spearman correlations between, on the one hand, alcohol consumption and domestic violence and, on the other hand, consumption of psychoactive substances and domestic violence, no relationship was observed between consumption and the variables studied in the Faces-IV questionnaire to measure domestic violence.

To conclude this first section of analysis, it is interesting to note the significant correlation found where it is confirmed that the higher the consumption of psychoactive substances, the higher the index of anger expressed in physical violence and in the vehicle variable in driving. The adaptive-constructive expression when driving with alcohol consumption obtained a significant level showing a considerable negative correlation (See Tables 1 and 2).

Secondly, a parametric test, Pearson's Correlation, was performed.

The results obtained in each of the correlations indicate that there is only a positive significance between the personality factors with variables of two of the instruments analyzed. Broadly speaking, it is suggested that the personality factors Agreeableness, Extraversion,

Openness, and Responsibility show a tendency to correlate negatively with respect to the dimensions measured by the instruments used to analyze aggressive behavior.

First, there is a significant relationship between personality factors and aggressive behaviors towards the partner in two of its variables. On the one hand, kindness and physical violence and, on the other hand, kindness and psychological aggression. As Pearson's coefficient is less than 1, it is concluded that the correlation between these variables is inverse.

Secondly, the correlation between the personality variable neuroticism and the variable verbal aggression at the wheel is highlighted. And also, within this instrument, a relationship is observed between the extraversion factor and the constructive adaptive expression at the wheel. Being (r) close to 1 in both cases, the existence of a positive correlation is confirmed.

As a relevant general aspect, it should be pointed out that the few significances that have been obtained have mostly referred to cocaine, cannabis, and hashish consumption, obtaining a general tendency to correlate positively on the one hand with personality and on the other with aggressive behaviors, compared to alcohol consumption. Tables 1 and 2 show the correlations obtained between alcohol and psychoactive substances consumption and the forms of expression of anger at the wheel.

Table 1

Spearman correlation between alcohol consumption and road rage

		Verbal	Physical	Vehicle	Displaced	Adaptive
Consumption	(rho)	.25	.42	.15	.26	-.49
Alcohol	(p)	.278	.066	.527	.259	.026
(drinks/week)						

Table 2

Spearman correlation between psychoactive substance use (cocaine, hashish, and cannabis) and road rage

		Verbal	Physical	Vehicle	Displaced	Adaptive
Consumption	(rho)	.41	.51	.52	.34	-.37
Psychoactive	(p)	.070	.021	.017	.144	.103
substances						
(frequency/month)						

Discussion and conclusions

The main objective of this research has been to analyze the correlation between the consumption of alcohol and psychoactive substances (cocaine, hashish, and cannabis), the main personality factors such as Neuroticism, Extraversion, Openness, Agreeableness, and

Responsibility, and aggressive behaviors in different contexts (intrafamily and driving) in the general population.

Based on the stated objective, the first starting hypothesis was the following: "There is a significant correlation between alcohol consumption with personality and aggressive behaviors, as well as consumption of psychoactive substances (cannabis, hashish, and cocaine) with personality and aggressive behaviors." This hypothesis is rejected because the results obtained in the statistical tests do not show a significant correlation between the variables. On the one hand, in terms of alcohol consumption (measured in drinks per week), no sufficiently conclusive results have been found with the variables of the instruments measuring personality traits and aggressive behaviors. On the other hand, regarding the consumption of psychoactive substances (measured in frequency of consumption per month), no significant results were obtained between the variables. It should be noted that, unlike alcohol consumption, in the correlation between the consumption of psychoactive substances with personality variables and aggressive behaviors, some variables have shown a tendency to correlate. However, the scarcity of variables with an evident significance leads to the conclusion that there is no significant correlation between these variables. Therefore, there is no correlation between alcohol and psychoactive substance use with personality and aggressive behaviors in the general population.

The second starting hypothesis was, "There is a significant correlation between personality factors such as Neuroticism, Extraversion, Openness, Agreeableness, and Responsibility with a series of aggressive behaviors in the consumption of substances (alcohol, cannabis, hashish, and marijuana), such as the expression of anger experienced at the wheel, domestic violence and more specifically towards the partner, and the expression of anger as a trait-state." After carrying out the pertinent statistics to obtain the correlations of these variables, we concluded by rejecting the hypothesis from which we started, since the results obtained show that there are hardly any significant correlations between the personality variables and the variables of each of the instruments used to measure aggressive behavior. Significant correlations have only been obtained between some of the variables of the Neo-ffi and some of the variables of two of the instruments, Dax and Cts-2. This does not confirm or is said to be inconclusive to determine the existence of a correlation between the personality variables and the aggressive behavior variables.

A study concerning the variables measured by this research (Cabrera, Toledo, García, Mendoza & Baez, 2008) with the aim of determining the association between cannabis use with personality traits, family dysfunction, and other variables, confirms that there is a significant relationship between antisocial behavior, highlighting impulsive traits, and habitual cannabis use, as well as with anti-conventional behavior that includes behavioral disorders and both criminal and aggressive behaviors. Despite the fact that in the present study the results were not significant between alcohol and psychoactive substance use and aggressive behaviors at the intrafamily, couple, and driving levels, it should be noted that the correlation between these variables was mostly positive and of medium strength, which may indicate a tendency to share variability. Furthermore, in the study analyzed, a direct relationship between substance use and family dysfunction is observed, that is, poor affective relationships and poor communication between family members. This aspect, like the previous one, is not linked to what was obtained in the research.

The correlation found in a study (López et al., 2007) between cocaine dependence and personality disorders claims that there is a direct relationship between aggressive, antisocial, and pathological personality variables and cocaine addiction. This differs from the results obtained in this research.

Parallel to this, another study (Cervera et al., 2001) focused on the comorbidity between impulse control disorders, specifically those related to substance use and personality disorders. As a dissimilarity to the results obtained in the present investigation regarding the possible relationship between substance use and aggressive behaviors with personality, in this study an association between these aspects was obtained, pointing out two personality disorders (antisocial personality disorder and borderline personality disorder) associated with substance use and impulse control deficits.

After analyzing these three studies relating aspects of personality with substance use, it can be inferred that all of them have obtained significant data regarding their correlations. This may be due to the fact that most of the studies correlate substance abuse disorder with personality disorders using a larger sample, unlike in this research. Therefore, in order to extrapolate significant results, a larger clinical sample would be needed to be able to associate substance use with specific disorders or traits of the drug-dependent personality. Although the results obtained have not been mostly significant because such significance depends on the size of the sample; it has been possible to perceive that they show a tendency to obtain a positive correlation.

Regarding the relationship between aggressive behavior and substance use, a study (Muñoz-Rivas, Graña, Fernández & Rodríguez, 2002) that focused on analyzing the influence of antisocial behavior on drug use, obtained results that show the relationship between drug use and the emission of behaviors that deviate from the norms of social behavior. Likewise, it has verified the close relationship between a greater and more frequent consumption of illegal substances with a greater presence of behaviors against the norms, concluding that there is a relationship between drug consumption and delinquency, contrary to the results obtained in the present study. This divergence may be due to the small number of the sample to the possible extraneous variable of social desirability or to the breadth of contexts analyzed in the research with respect to aggressive behaviors.

If we compare the results obtained in the present study with another of the studies analyzed (Rodríguez, Fernández, Hernández & Ramírez, 2006), the difference lies in the fact that their results showed that a high percentage of young people had participated in fights both in the last year and in the last month. This percentage was directly related to the consumption of illegal drugs (cocaine, hashish, cannabis, and ecstasy), being this consumption a highly influential factor. This dissimilarity with respect to the present research may be due to the age range of the sample, since in the study analyzed the sample is composed exclusively of young people.

In an article whose objective was to describe the frequency and magnitude of social and intrafamilial violence under the effects of alcohol and drugs (Salazar, 2008), the results concluded that people under the effects of alcohol and drugs have a greater tendency to manifest their aggressive personality due to the fact that their consumption predisposes them to violent behaviors. It can be said that in the present research this relationship between consumption and domestic violence or, more specifically, towards the partner does not occur, possibly because the sample is not large enough because it is composed of the general population and not people dependent on consumption, both alcohol and psychoactive substances, or because of the breadth of situations in which violence is exercised, since the study analyzed focuses on domestic violence, including, in addition, social violence in general.

Finally, as a relationship between anger and aggression in general and in driving, a study stands out (Fernández-Herrero, 2012) whose data obtained show that the relationship between the degree of anger experienced at the wheel and anger experienced in general are positively related. This indicates that road rage and anger in general are two personality traits that are

related. In contrast, in the present study no significant relationships were found between the personality factors studied and road rage. This may be, as already indicated, due to the small number of the sample or to the personality variables studied here, since they are different from those of the aforementioned work. Likewise, it can be concluded that the personality variables analyzed by this author are more likely to be related to driving anger than the personality variables used in the present analysis. However, it should be noted that, in this case, the results obtained between these two variables show a tendency to correlate positively.

On the other hand, a positive asymmetric distribution has been detected, obtained in the variables of both alcohol and substance use, which implies many cases with low values, and as a consequence many of the correlations that should have been significant have not been.

This research is designed in such a way that one of the main practical applications is, once it has been determined that the relationship between drug use and aggressive reactions of drug users is very likely, to study in depth, not only their specific personality traits, but also the possible history of drug use as a trigger in people who show aggressive behaviors.

Finally, the limitations of the study include the size of the sample, which is very small, and the fact that it is made up of the general population. This research was designed with the aim of using a clinical sample with which it was expected to obtain significant results by treating the use as a substance use disorder and not simply as habitual or sporadic use. In short, it is likely that these characteristics of the sample have limited the results of the research, given that similar investigations have obtained significantly conclusive data by studying a larger number of subjects and all of them from a clinical population. Therefore, for future research it is advisable to use a larger number of subjects, specifically clinicians, in order to have a larger sample and to study substance use as a dependence disorder. In this way, it will be possible to work with a standardized sample. In addition, it would be convenient to use more objective instruments to avoid the possibility of social desirability in the results. Likewise, it would be convenient to analyze aggressive behaviors in a wide range of contexts, such as education among peers... in addition to those studied in the research.

References

- Allen, J. & Holder, M. D. (2013). Marijuana Use and Well-Being in University Students. *Journal of Happiness Studies* 20(5), 1–21. <https://doi.org/10.1007/s10902-013-9423-1>.
- Álvarez, J. & Del Rio, M.C. (1994). Drogas, drogodependencias y seguridad vial. *Revista Española de Drogodependencias*, 19(4), 281-285.
- Arteaga, A., Fernández-Montalvo, J. & López-Goñi, J.J. (2012). Diferencias en variables de personalidad en sujetos adictos a drogas con y sin conductas violentas contra la pareja. *Acción Psicológica*, 9(1), 19-32. <http://dx.doi.org/10.5944/ap.9.1.699>.
- Cabrera, J., Toledo, I., García, R., Mendoza, M. & Baez, A. (2008). Prevalencia, rasgos de personalidad y microambiente en adolescentes consumidores de cannabis. *Semergen*, 34(8), 392-399. [https://doi.org/10.1016/S1138-3593\(08\)72347-5](https://doi.org/10.1016/S1138-3593(08)72347-5).
- Casas, M., Duro, P. & Guardia, J. (1993). El trastorno por dependencia de opiáceos. Conceptos básicos que deben ser manejados por el personal del Hospital General no especializado en drogodependencias. En J. Cadafalch y M. Casas (Eds.). *El paciente heroínmano en el Hospital General*, 41(4), 29-41.

- Cervera Martínez, G., Rubio Valladolid, G., Haro Cortés, G., Bolinches, F., De Vicente, P. & Valderrama, J.C. (2001). La comorbilidad entre los trastornos del control de los impulsos, los relacionados con el uso de sustancias y los de la personalidad. *Trastornos Adictivos*, 3(1), 3-10. [https://doi.org/10.1016/S1575-0973\(01\)70002-5](https://doi.org/10.1016/S1575-0973(01)70002-5).
- Cook, W. J. (1996). Mad drivers disease: a survival guide for handling. *US News and World Report*, 121(19), 74-76.
- Delgado, S. (1994). Delito y drogodependencias. *Psiquiatría Legal y Forense*, 3(1), 555-589.
- Dembinska-Krajewska, D. & Rybakowsky, J. (In press). Psychotropic drugs and personality changes: A case of lithium. *Pharmacological Reports*.
<https://doi.org/10.1016/j.pharep.2015.05.006>.
- Encuesta sobre Alcohol y Drogas en España. (2016). Ministerio de Sanidad, Servicios Sociales e Igualdad.
http://www.pnsd.msssi.gob.es/profesionales/sistemasInformacion/sistemaInformacion/pdf/2015_EDADES_Informe.pdf
- Fidel, G., Roncero, C. & Casas, B. (2004). Adicción a sustancias y trastornos de personalidad. *Trastornos de personalidad*, 35(4), 161-176.
- Florenzano, R., Valdes, M., Serrano, T., Rodríguez, J. & Roizblat, A. (2001). Desarrollo yoico, familia y adolescencia. *Psiquiatría y Salud Mental*, 18(1), 34-40.
- Graña, JL., Muñoz, JJ. & Navas, E. (In press). *Características psicopatológicas, motivacionales y de personalidad en drogodependientes en tratamiento en la Comunidad de Madrid*.
- Herrero-Fernández, D. (2012). *Ira y agresión en la conducción. Medición, correlatos con ira y agresión genéricas y predictores psicofisiológicos emocionales y conductuales* (Tesis Doctoral). Programa de doctorado psicología clínica y de la salud, Universidad de Deusto.
- Herrero-Fernández, D., Fonseca-Baeza, S. & Pla-Sancho, S. (2014). Estructura factorial del Driving Log en una muestra española. *Revista de Psicología*, 32(1).
<https://doi.org/10.18800/psico.201401.003>.
- López et al. (2007). Dependencia de la cocaína y trastornos de la personalidad. Análisis de su relación en una muestra clínica. *Trastornos Adictivos*, 9(3), 215-227.
[https://doi.org/10.1016/S1575-0973\(07\)75647-7](https://doi.org/10.1016/S1575-0973(07)75647-7)
- Mangas, V. (2015). *Relación ente la personalidad y el consumo problemático de cannabis en población universitaria* (Tesis de Pre-Grado).
- Mc Whinter, M. & Florenzano, R. (1998). Correlatos psicosociales de la farmacología: Resultados de un estudio en Santiago de Chile. *Revista Psiquiatría*, 15(1), 10-22.
<https://www.redalyc.org/articulo.oa?id=78524107>
- Méndez, I., & Cerezo, F. (2010). Bullying y factores de riesgo para la salud en estudiantes de secundaria. *European Journal of Education and Psychology*, 3(2), 209-218.
<https://doi.org/10.1989/ejep.v3i2.61>.
- Mihelj, J., Kos, A. & Sedlar, U. (2018). Implicit Aggressive Driving Detection in Social VANET. *Procedia Computer Science*, 129(2), 348-352.
<https://doi.org/10.1016/j.procs.2018.03.086>.

- Muñoz-Rivas, M.J., Graña, J.L., Fernández, M.E. & Rodríguez, J.M. (2002). Influencia de la conducta antisocial en el consumo de drogas ilegales en población adolescente. *Adicciones* 14(3), 313-320. <http://dx.doi.org/10.20882/adicciones.486>.
- Nadal Alemany, R. (2008). La búsqueda de sensaciones y su relación con la vulnerabilidad a la adicción y al estrés. *Adicciones*, 20(1), 59-72. <http://dx.doi.org/10.20882/adicciones.289>.
- Ray, W., Fought, R. & Decker, M. (1992). Psychoactive Drugs and the Risk of Injurious Motor Vehicle Crashes in Elderly Drivers. *American Journal of Epidemiology*, 136(7), 873-883. <https://doi.org/10.1093/aje/136.7.873>.
- Rodríguez, J., Fernández, A.M., Hernández, E. & Ramirez, S. (2006). Conductas agresivas, consumo de drogas e intentos de suicidio en jóvenes universitarios. *Terapia Psicológica*, 24(1), 63-69. <https://www.redalyc.org/articulo.oa?id=78524107>.
- Salazar, E. (2008). Violencia intrafamiliar y social bajo la influencia del alcohol y las drogas. *Red de Revistas Científicas de América Latina y el Caribe, España y Portugal*, 10(2), 7-38. <https://www.redalyc.org/articulo.oa?id=19546923006>.
- Torres, M.A., García, M.J., Muñoz, E., Fernández-Palacios, P. & Llopis, J.L. (1996). Rasgos de personalidad en drogodependientes. *Revista Española de Psiquiatría Forense, Psicología Forense y Criminología*, 1, 7-15. https://doi.org/10.5209/rev_FORO.2012.v15.n2.41489.
- Valero, S. (2009). *El Modelo Alternativo de los Cinco Grandes: estudios de fiabilidad y validez del Zuckerman-Kuhlman Personality Questionnaire (ZKPQ) en población general y clínica* (Tesis Doctoral). Departamento de Psiquiatría y Medicina Legal, Universidad Autónoma de Barcelona.
- Ziberman, N., Yadid, G., Efrati, Y., Neumark, Y. & Rassovsky, Y. (2018). Personality profiles of substance and behavioral addictions. *Addictive Behaviors*, 35(4), 228-342. <https://doi.org/10.1016/j.addbeh.2018.03.007>.

Reception: date 04/07/2021

Revision date: 06/15/2021

Acceptance date: 06/22/2021