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Article

Parental presence, deviant behaviors, and alcohol/drugs use in adolescents: the results of the International Self-report Delinquency Study 3.

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Abstract: The study is based on wide international research, the International Self-report Delinquency Study 3 (ISRD-3) and it analyses the relationship between parental presence, juvenile delinquency, and the consumption of psychotropic substances in adolescents. The data have been collected by a questionnaire ISRD-3 administered to 6021 students from 7th to 9th grade from 24 countries.

The results confirmed the protective effect of dual-parent families on alcohol and drug use and committing illicit behaviors. Monoparental families and families without parents are associated with higher levels of alcohol, drug use, and deviant behaviors by young people.

Keywords: parental presence; alcohol and drug consumption; deviant behaviors; adolescents

1. Introduction

Adolescent youth experiment with alcohol and drugs without realizing what the long-term consequences may be. [1].

The use of these substances can be very harmful to health. in the most serious cases, young people may develop an addiction to these substances[1] with an ever greater escalation of use with irreversible damage to physical and mental health [2]. Research shows that adolescents at risk of developing serious alcohol or drug problems are those who feel depressed, have low self-esteem, and have parents with alcohol or drug problems [3,4]. The World Health Organization (WHO) 2018 global status report on alcohol and health indicates that individuals of 15 years and older consume, on average, 6.2 L of pure alcohol per year (or 13.5 g per day) and that 139 million disability-adjusted life years (DALYs), or 5.1% of the global burden of disease and injury, are attributable to alcohol consumption [5].

Teenagers abuse a variety of illegal drugs such as marijuana, stimulants (cocaine, crack, and speed), LSD, opiates or opioid pain killers, heroin, and Ecstasy [6]. The average age of first marijuana use is 14, and alcohol use can start before age 12. The use of marijuana and alcohol in high school has become common [6]. According to the Report of the European School Survey Project on Alcohol and Other Drugs [7], "*over half of the 16-years-old students from 35 European countries reported consuming alcohol once in life, with a higher prevalence among girls. 33% of them tried alcoholic drinks at age of 13 or younger. Drug use is common as well with 17% of the population having used any illicit drugs at least once*

[1] Substance: in this manuscript, this term refers to the use of alcohol or drugs.

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in life. Cannabis has the highest prevalence followed by ecstasy, amphetamine, cocaine and LSD or other hallucinogens" [7].

In the "Monitoring the Future national survey results on drug use 1975-2021" report, Johnston and colleagues (2022) found that 7% of 8th-grade teens, 13% of 10th-grade teens and 23% of teens the 12th-grade teens, reported drinking alcohol at least once in the month before the survey. Prevalence of lifetime illicit drug use was about 47% in 2020 with a sudden decline in 2021 due to the pandemic situation [8].

Substance use is a health major problem due to the high prevalence of short and long-term related physical and mental illnesses but is also a social problem due to connected deviant behaviors [9].

It is generally accepted that the use of psychoactive substances is strictly connected to delinquency even if there is not a unique explanatory model between them nor it is known if drug use increases or is increased by delinquency [10-12]. Literature anyway is concord that abuse of substances is more frequent in adolescents committing any type of violation [1,12,13].

A more recent hypothesis states that the relations between the two phenomena are not directly linked but derive from common external or internal factors, which work as risk or protective factors of deviant behaviors [14]. Among them, experiences within the family play an important role [15-19].

Lower parental socioeconomic status [20,21], poor parent-youth relationship [22,23], and exposure to interpersonal violence and family conflict [24-27] increase the risk of deviant behavior. On the contrary parental monitoring seems to be the key factor to prevent substance abuse [13,25,28-31].

Specifically about family composition (i.e. family with two parents vs another type), Ledoux et colleagues (2002) concluded that living in a non-intact family increases the use of alcohol and illicit drugs as if a single-parent family is less supportive than a two-parent family [11]. Hemovic and Crano (2009) reinforced previous literature indicating the protective effect of dual-parent families in the use of inhalants, marijuana, and amphetamines [22]. Kask et colleagues (2013) stated that adolescents from two-parent households are less intense alcohol users, with significant differences between country and country clusters [25]. McArdle et colleagues (2002) highlighted consistent regional differences in the interaction between living with both parents and the rate of drug use (i.e. no association with reducing drug use in Dublin) [20].

Regarding gender differences, in 2018, the males/females ratio of current drinkers varied between 1.3 and 4.3 in different countries, while 3.3 million deaths (5.9% of all global deaths), including 7.6% of deaths among males and 4.0% of deaths among females were attributed to alcohol consumption [5]. An understanding of the biological (sex-related) mechanisms as well as psycho-socio-cultural (gender-related) factors contributing to such differences is necessary for the efficient diagnosis, prevention, and treatment of alcohol use disorders and related problems in men and women [32].

There are gender differences in adolescent substance use. Epidemiological data have shown that male adolescents have higher rates of substance use than females [33].

Adolescent substance use is an important modifiable risk behavior, with significant immediate and lasting adverse health and social consequences. In Europe, among 15 to 16-year-old adolescents, 47% have used alcohol and 23% have used tobacco by age 13 or younger [7]. Early initiation of substance use is associated with worse health outcomes and risky behaviors in adulthood [34]. Adolescence is a critical period of psychological, social, and cognitive development and increased vulnerability to substance use, delinquency, and sexual risk behaviors. Some authors consider that these risky

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behaviors stem from the interaction between individual and environmental factors such as family, peers, school, and broader social contexts [35-36].

Based on the landscape just seen, the Authors want to give their contribution aimed at a greater international knowledge of the existing association between parental presence, the use of alcohol or drugs, and young people's deviant behaviors. In particular, It wants to know if a certain type of family structure constitutes a protective or risk factor concerning the intake of alcohol or drugs and the commission of deviant acts; whether the use of alcohol or drugs constitutes a risk factor concerning the commission of certain types of deviant acts. Furthermore, the Authors investigate whether there are significant differences concerning the gender variable.

The research showed was carried out through the analysis of the data collected through the survey of the *International Self-report Delinquency Study*[2], an international study begun in the early Nineties of the Twentieth century, which is currently in its third edition, and which examines aspects of delinquency and the victimization of young adolescents. Data collection and database creation started in 2012 and ended in 2019.

2. Materials and Methods

- *Design*

[2] The Self-Report Delinquency Study (ISRD) is an international collaborative research enterprise with a cross-national description and explanation of juvenile delinquency as its main objective. The ISRD project commenced in the early 1990s with ISRD 1. It began with several pilot studies, workshops, and working papers exploring the possibility of conducting a truly standardized international self-report study of delinquency. The impetus for the ISRD-1 was the conviction that research on the prevalence of juvenile delinquency would be highly relevant for criminal policy as well as for criminological theory. This expectation helped to start the project in spite of the then unsolved methodological and organizational difficulties. Thirteen countries, most of which belong to the European Union, collaborated on the first study. They were Finland, Great Britain, The Netherlands, Germany, Belgium, Spain, Italy, Portugal, Switzerland, Northern Ireland, Greece, New Zealand, and the US (Nebraska). The target group for the ISRD-1 was 12-18 years. Most countries used self-administered pencil and paper questionnaires and a few used personal interviews. The premises and results of the first "sweep" of the ISRD study have been presented in great detail in previous publications [37-40].

In 2005, the second ISRD commenced. The ISRD-2 design was a major improvement over ISRD-1, in particular with respect to focusing on the importance of developing and enforcing a research protocol that was to be followed by all participants. The ISRD-2 was conducted in 25 European and 6 American countries. The target age group was 12-17 years.

The tool used was the self-report questionnaire. The results have been presented in previous publications [41-46](.

The ISRD-3 commenced in 2012. Twenty-four national teams conducted the ISRD3 survey between 2012 and 2019. Asia: Indonesia, India; Europe: *Eastern and Central European countries*: Armenia, Bosnia-Herzegovina, Czech Republic, Estonia, Kosovo, Lithuania, Macedonia Slovakia, Ukraine; *Mediterranean countries*: Croatia, Italy, Serbia; *Northern European countries*: Denmark, Finland; *Western European countries*: Austria, Belgium, France, Germany, Switzerland, the Netherlands, the UK (England, Scotland); *South America*: Venezuela.

The data set will be archived and made available for public use in the near future.

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ISRD3 uses a standardized self-report survey conducted in school settings among students in grades 7, 8, and 9 (or equivalent grades for children aged 12-16), randomly selected from schools in two medium or large cities (in each city 300 students per grade are being surveyed a total of 900 children per city).

- *Sample*

a. Selection of cities

The city-based sampling design was based on a minimum of five cities or towns per country, the main selection criteria being size, degree of urbanization, and demographic and economic Variables. The aim was to obtain three sub-samples, including a metropolitan area (defined as one of the main economic centers of a country with a population between 500,000 and one million inhabitants) a medium-sized city (of size 120,000 ± 20% inhabitants), and three small rural towns (10,000–75,000 inhabitants). According to the agreed-upon sample selection criteria, the three sub-sample groups would be equally represented in the final sample: a metropolitan subsample with 900 students, a mid-size city sub-sample with 900 students, and a small town cluster sub-sample with 900 students (combined from three small towns).

Ideally, each country attempted to select cities, which are considered typical for the country. The selected cities were as comparable as possible to other cities/towns of the same size.

Cities with 300,000 inhabitants and more are defined as large, cities with 100,000 to less than 300,000 inhabitants as medium-sized, and towns with 10,000 to less than 100,000 as small towns.

b. Classroom-based selection of respondents

The sampling plan asked for a random selection of 7th, 8th and 9th-grade classrooms in the selected cities (representing 900 students each, 2,700 total). All samples were stratified according to grade level (7th, 8th and 9th grade), some additionally to school type (academic, technical or vocational). The minimum core sample was randomly selected from among the 7th, 8th and 9th-grade classrooms at the schools in the selected cities/towns or nations.

A stratified multi-stage sampling procedure was used. First, a listing of all secondary education schools in the selected cities was created. This included public and private schools and vocational, technical and academic schools. Then, a listing of all 7th, 8th and 9th-grade classrooms in these institutions was constructed. By selecting classes randomly from these listings, the number of students drawn was proportional to the proportion of students in each school type. To standardize the sampling procedure participants could make use of the "Survey Manager", an Excel program specially written for the ISRD-3 study to manage the list of schools and classes, draw random samples of classes, and manage the survey administration.

-*Participants*

Students were admitted to participate in the research voluntarily upon signature, by the student's parents or in their parent's place, of a letter concerning informed consent. 61.021 students participated in the study.

-*Tool*

The tool used was a self-report questionnaire compiled anonymously. Two versions of the questionnaire were developed: a pencil and paper version and an electronic version. Several

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participants opted for online (computerized) data collection. This is a more cost-effective method. The data obtained from the two versions of the questionnaire are comparable as the two versions are identical.

The questionnaire has closed-ended questions (some answers are dichotomous, others multiple, others on a Likert scale).

The questionnaire included questions about lifestyle, socio-demographic characteristics, victimization and deviant or law-offending behaviour.

Regarding the paper and pencil version of the questionnaire, it was completed in class in the presence of the researcher and the teacher if possible. Also, data entry was done using EPI DATA software.

The instruction was reported on the first page of the questionnaire: "Hello, this survey is one of the first to give a voice to young people from different countries (about thirty currently), to allow them to express their opinions and compare situations of different countries.

In particular, we would like to learn more about some details about your life, the school you attend, how you spend your free time and the problems you may face in these situations. The questions in the questionnaire relate to your personal experience and opinions and you are free to answer or not answer. Consider that the questionnaire is completely anonymous; your name will not appear in any document and your parents and your teachers will not be able to know the answers you will give. Even our research group will not know who gave the answers. If there are any unclear questions, do not hesitate to contact the assistant present in the classroom. Don't think too much before answering the questions, just respond spontaneously. We sincerely thank you for agreeing to participate in our investigation. Before starting, please enter the number that will be shown in the fields below ".

- *Hypothesis*

Based on the most recent international research [4,18,19,31,47] Authors expect that:

a. Growing up in a family in which parents, even adoptive ones, take care of the child's education is a protective factor against the use of substances and the commission of deviant acts in adolescence;

b. Those who use alcohol and/or drugs commit deviant acts more frequently than those who do not use such substances;

c. There is a gender difference concerning the commission of deviant acts and the use of alcohol and/or drugs.

- *Goals*

The study aims to better understand the relationship between the presence of parents in raising children, the deviant behaviour of young people, and the use of alcohol or drugs. Furthermore, the study wants to investigate whether there are differences concerning gender. The novelty of the study lies in the fact that the whole sample, representative of the international youth population, completed the same self-report questionnaire. A study of such a sample size, internationally representative, is the first of its kind.

- *Measures*

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The data analysis was carried out by taking the item "Which people are involved in bringing you up?" [3]with answer options:

- Father and Mother (or stepfather/stepmother);
- One parent only (father or mother);
- Other situations (specify).

The variables on parental presence were crossed with the following items with dichotomic answers "yes", and "no":

- use of alcohol or drugs at least once in life. Drugs are divided as follows: -Cannabis, marijuana, hashish; Soft drugs (ecstasy, LSD, speed, amphetamines), Hard drugs (heroin, cocaine, crack);
- deviant behaviors carried out at least once in life (painting on a wall, vandalism, shoplifting, burglary, bicycle theft, car theft, stealing off or from a car, extortion, personal theft, carrying a weapon, group fighting, personal injuring, digital piracy, selling drugs, hurting animals).

All analyzes were performed concerning the gender variable (male/female).

- *Statistical analysis*

The analysis of the responses to the ISRD3 questionnaire was carried out with purely descriptive purposes, trying to highlight those characteristics that better than others could prove useful in explaining the possible presence of an association between the presence of parents (including adoptive ones) in the education of the children, alcohol or drug use and deviant behaviors of the same, and if there are differences from gender.

The study is observational, and case-control.

The sample was divided into 3 categories concerning the parental presence in the upbringing of children, and within these, a division was made concerning gender.

The odds ratios derived from the following analyzes:

[3] Both the formulation of the question and the articulation of the answers must induce a certain degree of caution in evaluating the empirical findings. First, the question does not refer precisely to the time of the sample survey but the course of the adolescent's life. If this formulation does not influence most of the respondents - that is, those in whose life the reference persons for care and education have always been the same (or always the same) - some reflection should be made for the other respondents, who, if in the course of their short life they have undergone some critical event (for instance, the passage to a new family following the separation of the natural parents) they may have indicated parental figures who are no longer the current reference figures. And this can happen for very different reasons: marital separation, abandonment of the household, serious illness, death, internment, migratory condition, etc.: reasons that may have interrupted not only the daily coexistence but also the maintenance of an emotional bond of generation.

Secondly, the answers provided prevent us from distinguishing one of the newly emerging family forms: the so-called "recomposed" families, in which one of the natural parents (usually the father) goes away and is replaced by the new partner of the remaining spouse.

The variable "presence of parents", therefore, more than an indicator of the family structure should be understood as the presence of parents during the adolescent's life, as a reference for the care and education of the student.

By applying this extended definition to the data reading, it is also possible to understand the need to keep the category - Other situations (specify) - to indicate those cases (not many, but significant) that did not have any parent as a reference. The lack of some data such as the number of brothers/sisters and the number of other people living together did not allow us to measure the influence of phratry and the quantitative size of households on the use of alcohol, drugs, and antisocial behaviors.

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- Parental presence (independent variable) and use of substances and deviant behaviors (dependent variables);
- Substances takers (independent variable) and deviant behaviors.
- Gender (independent variable) and use of substances and deviant behaviors (dependent variables).

The data was entered into the computer using the EpiData software. The STATA/SE 17.0 program was used for the analysis.

Ambiguous answers were not included in the statistical analysis.

3. Results

Overall statistics

During this study, 61.021 questionnaires were collected and the population was equally divided between M (N=30383, 49.8%) and F (N=30638, 50.2%). 81.4% of participants were brought up by two parents (mother and father), 15.9% by a single parent, and 2.4% declared "other situations" (not specified). No differences were observed by gender.

Alcohol was consumed by half of the enrolled population (53.3%), with the same percentages between the genders (52.8% for M; 53.8% for F).

Cannabis was the second most used substance (9.1%), while "soft" and "hard" drugs count for 2.0% and 1.4%, respectively. In all these cases, consumption was quite higher in M population (Cannabis: 10.8% for M, 7.5% for F; "soft": 2.2% for M, 1.7% for F; "hard": 1.7% for M, 1.2% for F), with a not significative value of OR (0.97). "Digital piracy" was the most reported illicit behavior (42.6%), followed by "painting on a wall" (12.4%) and "shoplifting" (11.4%), while the other offenses were always < 9%. Males were involved more in all the offenses, as summarized in Table 1. For both the gender, the most reported deviant behaviors variables were "Digital piracy" (48.0% for M, 37.3% for F) and "painting on a wall" (14.0% for M, 10.9% for F), followed by "group fighting" for M (13.0%) and "shoplifting" for F (10.1%). Other relevant offenses in the M population were: "shoplifting" (12.7%), "carrying a weapon" (12.2%), and "vandalism" (10.7%). None of the remaining offenses in F was > 10% (Table 1).

Table 1: Studied population and distribution about gender, people involved in their bring up, lifetime use of substances and illicit behaviours.

	Male (%)	**Female (%)**	**Total population**
	30383 (49.8)	30638 (50.2)	61021
Brought up by…			
Father and mother	24832 (81.7)	24838 (81.1)	49670 (81.4)
One parent	4734 (15.6)	4991 (16.3)	9725 (15.9)
Other situations	717 (2.4)	738 (2.4)	1455 (2.4)
Drug consumption			
Alcohol	16039 (52.8)	16495 (53.8)	32535 (53.3)
Cannabis	3269 (10.8)	2310 (7.5)	5579 (9.1)
Soft drugs	681 (2.2)	530 (1.7)	1211 (2.0)
Hard drugs	523 (1.7)	352 (1.2)	875 (1.4)

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Illicit behaviours			
Painting on wall	4248 (14.0)	3324 (10.9)	7572 (12.4)
Vandalism	3242 (10.7)	1716 (5.6)	4958 (8.1)
Shoplifting	3868 (12.7)	3104 (10.1)	6971 (11.4)
Burglary	653 (2.2)	205 (0.7)	859 (1.4)
Bicycle theft	1410 (4.6)	502 (1.6)	1912 (3.1)
Car theft	532 (1.8)	169 (0.6)	700 (1.1)
Stealing off or from a car	972 (3.2)	337 (1.1)	1309 (2.1)
Extortion	623 (2.1)	224 (0.7)	847 (1.4)
Personal theft	2613 (8.6)	1762 (5.8)	4375 (7.2)
Carrying a weapon	3719 (12.2)	1216 (4.0)	4935 (8.1)
Group fighting	3941 (13.0)	1517 (5.0)	5457 (8.9)
Personal injuring	1185 (3.9)	463 (1.5)	1648 (2.7)
Digital piracy, hacking	14581 (48.0)	11428 (37.3)	26009 (42.6)
Selling drugs	1310 (4.3)	751 (2.5)	2060 (3.4)
Hurting animals	1787 (5.9)	956 (3.1)	2742 (4.5)

n=61021

Alcohol/drug consumption and family composition

Consumption of any substance is the highest among people brought up by "other situation", except for alcohol (Table 2). This population is more likely to consume drugs (OR=1.55), while it presents lower chances to be a drinker of alcoholic beverages (OR=0.83). As stated above, alcohol consumption in the enrolled population was attested to be 53.3% and it resulted to be slightly higher in F (+1.0 %; 52.8% for M; 53.8% for F). The difference between genders was even higher for people brought up by "a single parent" (+5.8%; 54.3% for M; 60.1% for F) and by "other situations" (+3.2%; 50.6% for M; 53.8% for F; Table 2). No difference in gender distribution was observed for the population brought up by "two parents" both for alcohol (52.6% for M; 52.7% for F) and drugs (Cannabis: 9.8% for M; 9.0% for F; "soft" drugs: 2.0% for M; 1.7% for F; "hard" drugs: 1.5% for M; 1.4% for F). However, as seen for alcohol, consumption of Cannabis and "soft" drugs is higher in the F population brought up by "one parent" and by "other situation" (Table 2). Regarding "hard" drugs, no difference between genders were reported ("two parents": 1.5% for M; 1.4% for F; "one parent": 2.6% for M; 2.5% for F; "other situation": 5.2% for M; 5.2% for F).

Table 2: Consumption of alcohol and illicit substances vs people involved in bringing up and gender.

Substance	**Father and mother**			**One parent**			**Others situations**		
	M	**F**	**Total**	**M**	**F**	**Total**	**M**	**F**	**Total**
Alcohol	52.6%	52.7%	52.6%	54.3%	60.1%	57.2%	50.6%	53.8%	52.2%
Cannabis	9.8%	9.0%	9.4%	15.2%	17.8%	16.5%	16.0%	19.3%	17.7%
Soft drugs	2.0%	1.7%	1.9%	3.1%	3.8%	3.5%	5.7%	6.6%	6.2%
Hard drugs	1.5%	1.4%	1.4%	2.6%	2.5%	2.5%	5.2%	5.2%	5.2%

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Alcohol/drug consumption and illicit behaviors

It must be underlined that consumers of any psychoactive substance usually reported higher illicit behaviors than the overall population (table 3). Among the alcohol drinkers, the most declared violations were "painting on a wall" (18.4%), "shoplifting" (15.2%), "group fighting" (12.3%), and "carrying a weapon" (11.5%), and "vandalism" (11.1%). For these crimes, the OR to be drinker was always positive and significant (1.82, 2.31, 1.59, 2.28, and 1.80, respectively). The same main violations were reported by drug consumers, but with higher percentages. For Cannabis smokers, the reported values were: 35.5% for "painting on a wall"; 31.6% for "shoplifting"; 25.8% for "group fighting"; 25.2% for "carrying a weapon"; 24.8% for "vandalism". These values were even higher in "soft" and "hard" drug consumers, respectively: 49.6% and 43.1% for "painting on wall"; 36.9% and 37.3% for "shoplifting"; 40.6% and 41.5% for "group fighting"; 40.0% and 42.1% for "carrying a weapon"; 39.6% and 37.3% for "vandalism". The OR were 1.95, 2.20, 1.59, 2.28, and 1.80 (not significative). As shown in table 3, the profile of reported illicit behaviors is quite similar between alcohol and drugs consumers, except for "selling drugs" which count for 4.5% in alcohol drinkers and 23.5%, 40.8%, and 37.9% in Cannabis, "soft" and "hard" drugs consumers. This correlation between drug consumption and drug selling is also highlighted by the OR, calculated at 15.43. However, the most declared violation is always "digital piracy" (57.4% for alcohol; 74.5% for Cannabis; 73.0% for "soft"; 62.1% for "hard").

Table 3. Illicit behaviours reported by alcohol/illicit drugs consumers.

Substance	Alcohol	Cannabis	"soft"	"Hard"
Painting on wall	18,4%	35,5%	49,6%	43,1%
Vandalism	11,1%	24,8%	39,6%	37,3%
Shoplifting	15,2%	31,6%	36,9%	37,3%
Burglary	1,2%	3,7%	10,4%	15,1%
Bicycle theft	3,0%	9,0%	17,4%	19,9%
Car theft	1,0%	3,7%	11,7%	13,5%
Stealing off or from a car	2,5%	6,5%	14,1%	18,6%
Extortion	1,4%	4,7%	12,7%	18,0%
Personal theft	9,2%	17,5%	27,3%	29,3%

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Carrying a weapon	11,5%	25,2%	40,0%	42,1%
Group fighting	12,3%	25,8%	40,6%	41,5%
Personal injuring	3,1%	8,1%	19,9%	23,2%
Digital piracy, hacking	57,4%	74,5%	73,0%	62,1%
Selling drugs	4,5%	23,5%	40,8%	37,9%
Hurting animals	5,4%	6,8%	10,9%	16,7%

Family composition and deviant behaviors

For the population reporting a "classical" family, we noted higher percentages of deviant behaviors in M (Table 4). The main declared offense (excluding "digital piracy") was still "painting on a wall" for both genders (13.5% for M; 10.2% for F), but substantial differences were observed for the other violations' occurrences. Indeed, 9.0% of F reported "shoplifting" (7.3% in M), while the other deviant behaviors counted always less than 5.2% ("personal theft"). In M, the most reported deviant behaviors were: "group fighting" (12.4%), "carrying a weapon" (11.2%), and "vandalism" (10.1%). In the population brought up by "a single parent", the values arise. For F, "shoplifting" counted for 15.0% and "painting on a wall" for 13.4%; other relevant offenses were: "vandalism" (8.4%), "group fighting" (7.8%), and "personal theft" (7.7%). In the M population, we observed changes in the declared deviant behaviors profile. Indeed, even if the most reported is still "painting on a wall" (15.5%), similar percentages were reported for "shoplifting" (15.5%) and "carrying a weapon" (15.1%). "Group fighting" counts for 14.8%, while "vandalism" and "personal theft" for 12.5% and 11.1%, respectively. Even higher values were observed for people brought up in "other situations" with similar deviant behavior profiles. However, in the M population, we see an increment in the relevance of "personal injuring" (10.0%), "selling drugs" (10.0%), and "hurting animals" (9.8%).

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Table 4. Illicit behaviors among family situations and gender

Illicit behaviors	Father and Mother			One parent			Others situations		
	M	F	Total	M	F	Total	M	F	Total
Painting on wall	13.5%	10.2%	11.8%	15.5%	13.4%	14.5%	20.2%	17.0%	18.6%
Vandalism	10.1%	4.9%	7.5%	12.5%	8.4%	10.4%	15.5%	9.8%	12.6%
Shoplifting	7.3%	9.0%	8.1%	15.5%	15.0%	15.2%	19.5%	16.4%	18.0%
Burglary	1.8%	0.5%	1.2%	3.2%	1.2%	2.2%	6.4%	3.6%	5.0%
Bicycle theft	4.3%	1.4%	2.8%	5.9%	2.6%	4.2%	8.2%	4.1%	6.2%
Car theft	1.5%	0.4%	0.9%	2.3%	0.9%	1.6%	6.3%	3.9%	5.1%
Stealing off or from a car	2.9%	0.9%	1.9%	4.1%	1.6%	2.8%	6.6%	4.3%	5.4%
Extortion	1.7%	0.6%	1.2%	3.1%	1.0%	2.0%	5.3%	3.2%	4.3%
Personal theft	7.9%	5.2%	6.6%	11.1%	7.7%	9.4%	13.7%	11.2%	12.4%
Carrying a weapon	11.5%	3.4%	7.4%	15.1%	6.2%	10.6%	17.5%	10.3%	13.9%
Group fighting	12.4%	4.1%	8.2%	14.8%	7.8%	11.3%	19.8%	12.7%	16.2%
Personal injuring	3.5%	1.3%	2.4%	4.9%	2.3%	3.6%	10.0%	4.5%	7.2%
Computer hacking	48.1%	36.6%	42.3%	47.7%	42.0%	44.8%	45.0%	34.3%	39.6%
	3.8%	2.0%	2.9%	5.9%	4.1%	5.0%	10.0%	5.9%	7.9%

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Selling drugs									
Hurting animals	5.7%	3.0%	4.3%	6.1%	3.5%	4.8%	9.8%	3.7%	6.7%

4. Discussion

The study aims at contributing to the understanding of the relationship between parental presence, abuse of alcohol or drug, and deviant behavior in adolescents. To achieve our aims, the population was first divided into three major groups based on people involved in adolescent bringing up: two parents, one parent, and other situations. A Monoparental family may derive from one parent's death or abandonment as well as divorce, separation, or being born to a single parent. “Other situations” include a wide range of different situations united by the absence of both mother and father in which the parental role is held by other figures, such as orphans and adopted children. Our study does not analyze the reason that leads to those familiar structures.

Our results confirmed all the previous literature [30,31,47,48] on the protective effect of dual-parent families in both alcohol and drug use, without gender differences, as well as in committing illicit behaviors. Monoparental families and families without parents (other situations) were related to higher values both for the use of drugs and for the commission of illicit behavior.

In particular, the authors found that the prevalence of consumption of any substance is highest in “other situation” subgroups, but in the use of alcohol. Compared with other subgroups, adolescents in “other situations” have a higher risk of using cannabis and soft drugs (OR=1.55) and lower chances to be drinkers of alcoholic beverages (OR=0.83). The same population has the highest rate of illicit behaviors. As already stated many conditions may lead to atypical family and those life events may influence adolescent deviant behavior also as independent factors [30,48].

Adolescents brought up by one parent have an intermediate rate of substance use and illicit behavior. Those results confirm previous literature [49] which concluded that growing up in a single-parent family has a positive relation with adolescent involvement in crime, independently of the cause of the single-parent situation (one parent's death or abandonment as well as divorce, separation, or being born to a single parent). Anyway, since participants didn’t specify the reason that leads to the monoparental situation, it seems hard to find a reason for the positive correlation found.

Growing up in monoparental families and families without parents was confirmed to be an important risk factor for juvenile deviance [50,51]. However, it is important to remember that unconventional families should not be considered pathological or dysfunctional and a new family structure can sometimes improve the growth environment [52].

The study confirmed also that the most common illicit substance used by all groups is alcohol, with a slightly higher prevalence in females [7,8,13]. The sex difference in drinking alcohol between males and females is wider in subgroups “one parent” (+ 5.8%) and “other situation” (+ 3.2%). Those results are consistent with the theory that females are more family-oriented than males so they are more sensitive to family disruption [52].

Illicit behaviors, are most common among males compared with females, confirming that the male sex is an independent risk factor for juvenile delinquency [47].

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The most common declared violation is “digital piracy” probably due to the wide diffusion of surfing the internet among teenagers and the less consciousness of committing a crime. It is followed in both sex by “painting on wall”.

Consumers of any psychoactive substance usually reported higher illicit behaviors than the overall population. The higher prevalence of drug users is consistent with the classic tripartite model of Goldstein [10]. According to that model, drugs and violence are related in three possible ways: 1) psycho pharmacologically, so the violence is a consequence of excitation following substance intoxication or abstinence; 2) economic compulsively, so the violation is committed to sustainable economic costs of dependence; 3) systematically, referred to intrinsic violence of distribution system of illegal psychoactive substances.

Drug consumers have a higher prevalence of violations than alcohol drinkers, with a higher percentage of hard drug users than soft drug ones. The differences between the three subgroups anyway are not statistically significant.

Apart from “digital piracy”, the kind of violations of the four subgroups of psychoactive substance users (alcohol users, cannabis users, users of soft drugs, and those of hard drugs) are mostly overlapping and include painting on walls, shoplifting, group fighting, carrying a weapon and vandalism.

"Selling drugs" was found to have a very different prevalence among our subpopulations, with a rating from 4.5% in alcohol users to 40.8% in soft drug users. This result may be explained by the over-mentioned Johnson (2003) economic compulsive pathway since for a drug user selling drugs may be an easier way to access the substance and also a way to earn money to buy it [53].

According to the type of violation, we find a slight sex difference. The female group is more frequently involved in "shoplifting" while the male group is more aggressive behaviors ("group fighting", "carrying a weapon").

According to parental presence, in the "other situations," population illicit behavior is recorded in higher percentages, and also "personal injuring" and "hurting animals" acquire relevance, according to what was stated above about the presence of other influencing factors.

5. Conclusions

The family is confirmed to be an important factor that may influence both positively and negatively juvenile behavior.

The presence of both parents represents a protective factor both in the use of drugs and committing illicit behaviors. The absence of parents raises the prevalence of committing illicit behaviors and substance use but not alcohol, whose prevalence is not different from that in dual-parent families.

Substances use and illicit behaviors are confirmed to be strictly connected with family structure suggesting the presence of external social factors influencing deviant behaviors.

In light of the results obtained, the authors are preparing a larger study with multivariate analyzes in which, beyond the family structure, alcohol or drug abuse and deviant behaviors are taken into consideration, the emotional support that children perceive from their parents. and the quality of the relationship with one's parents.

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R.R. conceptualized and wrote the manuscript; F.V. wrote the results and the discussion; S.R and S.T. wrote the introduction and conclusions; B.G. reviewed the manuscript.

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The study involving human participants was reviewed and approved by the Ethic Committee (Steering Committee of International Self Report Delinquency Study). The approval code is CCBYNCSA4

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Written informed consent to participate in this study was provided by the participant's legal guardian / next of kin.

That all methods were performed to the relevant guidelines and regulations

Informed Consent Statement: The Ethic Committee approved the publication

Data Availability Statement: The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation. Contact the ethics committee to have the data viewed.

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The datasets used and/or analyzed during the current study are available from the corresponding author upon reasonable request.

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