Emerging trends in consuming behaviours for non-controlled substances by Italian urban youth: a cross sectional study

Roberta Pacifici¹, Ilaria Palmi¹, Paolo Vian², Alessandra Andreotti², Claudia Mortali¹, Paolo Berretta¹, Luisa Mastrobattista¹ and Simona Pichini¹

¹Dipartimento del Farmaco, Istituto Superiore di Sanità, Rome, Italy
²EXPLORA - Research and Statistical Analysis, Vigodarzere (PD), Italy

Abstract

**Introduction.** We investigated emerging trends in consuming behaviours for non-controlled substances in a cross sectional study on urban Italian adolescents and young adults, the reasons for consumption and risk perception as function of age, the relation with lifestyles and finally risk factors associated.

**Methods.** The survey methodology involved the administration of an anonymous questionnaire. It consisted of 68 questions, divided into five sections: personal details, socioeconomic characteristics, family and peer group, free time and lifestyles, and substances use.

**Results.** A total of 2621 adolescents and young adults (14-35 years old) from seven different Italian cities answered the questionnaire. The substances examined were mainly used recreationally (alcohol, energy drinks and smart-drugs) or to improve physical and sexual performance (physical performance-enhancing drugs, anabolic steroids and male sexual enhancement). The knowledge of the health related harm arising from the use of these products was very high for alcohol (> 90%), high for smart-drugs (> 70%), but significantly lower for anabolic steroids, drugs for sexual enhancement (~ 60%), physical performance-enhancing drugs or energy drinks (~ 55%). The principal risks factors for consumption were: the influence of friends (OR: 8.8), attending recreational places (OR: 5.4) aged between 25-35 years (OR: 3.0), be male (OR: 2.5) and having a bad relationship with the mother (OR: 2.1).

**Conclusions.** These results have implication for prevention and early intervention programs of “physically and psychologically enhancing” non controlled substances use, which similarly to what is frequently advised for classical illicit drugs should focus on information campaigns and awareness initiatives especially addressed to young male adults who go clubbing, live outside the family and showed closed links with peers.

**INTRODUCTION**

The most recent national survey conducted on 19000 Italians from 15 to 64 years old in 2012, estimated that the percentage of occasional or daily users of illegal psychotropic drugs at least once in the last 12 months showed a decreasing trend with respect to 2010. This slight decrease was observed also in 2014 for the specific case of secondary school students (from 15 to 19 years of age) for all the above-reported substances with the exception of cannabis whose consumption at least once in the last 12 months increased from 21.56 to 23.46% [1].

Unlike the decreasing use of illegal psychotropic drugs, legal addictive substances such as tobacco and alcohol together with non controlled substances such as energy drinks, smart-drugs, physical performance-enhancing drugs (anabolic steroids and male sexual enhancement products, are widespread between adolescents and young adults in western countries including Italy [2, 3].

In this concern, official reports informed that, in 2014, 19.7% from 15 to 24 years old people were tobacco smokers with 1.3% youngsters smoking more than 25 cigarettes/day, with the percentage of young smokers...
stable around 19% since the previous five years [4].

Likewise, in 2014, 21.5% adolescents and 74.3% young adults drunk at least one alcoholic beverage during the year with a decreasing trend since the previous 10 years (32.1 and 82.1% respectively), with 15.5% risk behaviors (e.g., binge drinking) prevailing in 18-24 years old youngsters [5].

In contrast from the detailed information on tobacco and alcohol consumption, few data are available concerning the consumption of energy drinks [6, 7], smart-drugs [8-10] and physical and sexual [11] performance enhancers by Italian adolescents and young adults.

In particular, a first recent study showed that nearly 68% of 616 interviewed Italian adolescents drunk at least a whole can of energy drink during their life, and about 55% reported consuming energy drinks during the previous 30 days before the survey [6]. Moreover, a study conducted during the 2011-2012 in the Veneto Region (northeastern Italy), demonstrated that the energy drinks use increased significantly with age, going from 17.8% among sixth graders to 56.2% among eighth graders [7]. Similarly, in 2013 smart-drugs (defined as club drugs and novel psychoactive substances) misuse was monitored through a self-administered questionnaire proposed to subjects 18-30 years old at the entrance of 5 nightclubs in Rome proving that 78% of respondents had a lifetime history of use of new psychoactive drugs such as amyl nitrite (45%), synthetic cannabinoids (35%), lysergic acid diethylamide (LSD) (24%), mephedrone (18.8%), ketamine (18%), Gamma-hydroxybutyrate (GHB) (10.2%), psilocybin (4%), and Salvia divinorum (3.2%), with 39% having used them in the 12 hours preceding questionnaire administration [8]. Unfortunately, there is no information about the “recreational” use of sildenafil or other sexual enhancement products in young men in Italy. However, an American study reported that about 21.5% of 321 healthy men between 18 and 30 years old interviewed from August to November 2009, used a phosphodiesterase type 5 inhibitors recreationally [11].

What it is known is that the majority of these products can be bought from internet web sites anonymously, with the risk of buying something different, counterfeit or completely fake; caffeinated energy drinks are often mixed with alcoholic beverages with increased risk of binge drinking, impaired driving, risky sexual behavior, and decreased perceived intoxication [12]; and male sexual enhancement products (e.g. sildenafil) have been used concomitantly with cocaine with severe cardiovascular effect [13, 14].

Finally, whereas the socio-familiar factors related to the initiation to tobacco smoke or to the alcohol drinking are well known and proved to be supported by peers and friends [15, 16], nothing is known about predictors of non controlled substances use.

At the end of 2011, the Italian Youth Department funded the National Institute of Health (Istituto Superiore di Sanità, ISS) to perform a population-based survey. The aim of the study was to fill the gaps in knowledge of a phenomenon that lies somewhere between a new trend of substance consumption to generally improve performance and new forms of addiction to psychoactive substances and misuse of physical and sexual enhancers potentially harmful to the health of youngsters.

In this paper we present the results of the survey concerning the emerging trends in consuming behaviours for non-controlled “physically and psychologically enhancing” substances in adolescents and young adults, the reasons for consumption and the perception of the risk as function of age, the relation with lifestyles and finally associated risk factors to these new trends of consumption.

METHODS
Sampling and subjects
The project was a multidisciplinary, multicentric, cross-sectional study carried out in 6 Italian cities during August 2013-March 2014: Turin (Northern peninsula), Pistoia, Ascoli Piceno and Rieti (central peninsula), Olbia (Sardinia Island) and Lecce (Southern peninsula). The choice of the above-reported cities was carried out considering the capillary knowledge of the area by the interviewers. In each city, well known recreational premises (discos or other recreational sites, e.g. pubs, night bars, etc.) and schools which accepted to participate were included. The total sample size was set at 2500 subjects of both sexes, and a sampling design proportionally stratified by sex, age group and area of investigation was selected. Apart from the above-reported characteristics, no other inclusion or exclusion criteria were considered.

The indicator chosen to define the number of subjects to be interviewed in each city was detected in the percentage of subjects consuming at least one of the substances under investigation. For each city (where estimated population from 14 to 35 years of age was around 10 000 persons) the sample size, established in 417 subjects stratified by gender and age group allowed with a probability of 95% estimates of consumers [17, 18].

Questionnaire
Eligible individuals were briefed about the purposes of the study and subsequently received a sealed envelope containing an informed consent form and a questionnaire. Participants signed the informed consent and a parental written informed consent was necessary for the subjects under 18 years of age. The study was approved by the Institutional Ethical Committee and conducted in accordance with the Declaration of Helsinki. The questionnaire was prepared ad hoc modifying in some points the one in the previous survey carried out in 2009 (the questionnaire is available as Supplementary Material in Italian at www.iss.it/anna, authors can provide an English translation if necessary).

For individuals older than 18 years of age, questionnaires were administered at recreational premises such as discos or other recreational sites (e.g. pubs, night bars, etc.).

The questionnaire consisted of 68 questions divided into five different sections:
1. personal details: gender, place and date of birth and educational level;
2. socioeconomic characteristics as occupational status or eventual job type;
3. family and peer group. The respondents were asked with whom they live at the moment (e.g. mother, father, friends. In this section they were also asked about their relationship with each of the parents or the partner, their relationship with the friends (complicity, enjoyment, affection, safeness);
4. typical free-time (meaning in the recent years, depending on the age of responder). In this section respondents were asked how they spent their free time (e.g. watching television, with friends, with family, going to the bar or the discotheque or any recreational place, going to gym);
5. typical Lifestyle and substances use at least once in the lifetime. This was the main section of the questionnaire. Respondents were asked about their possible drinking pattern (frequency of alcohol drinking, type of alcoholic beverage, reasons to drink alcohol, with who and where they drink alcohol, their knowledge about the associated risks). Similar questions were asked for energy drinks, smart-drugs, physical performance-enhancing drugs, anabolic steroids and male sexual enhancement products. For all these last substances, the source of supply was also investigated. The eventual substances consumption was referred to once in a lifetime.

It has to be specified that the questions regarding substances were general, just the class of substances was mentioned and not the specific compounds, which were listed by the interviewer only if required.

In order to investigate the risk perception associated to substances consumption, responders were asked to assert their knowledge regarding health related harm for all the considered substances.

Questions with multiple answers were formulated by an expert team which included psychologists, sociologists, statisticians and pharmacologists coordinated by the study group of National Institute of Health.

Substances under investigation

The substances under investigation were the following: alcohol, caffeinated energy drinks (beverages that contain from 80 to 500 mg caffeine per drink plus taurine, guarana, amino acids, vitamins and sugar, promoted as being beneficial in increasing stamina and improving physical performance, endurance and concentration), physical performance enhancers (proteins powders, creatine, branched-chain amino acids), smart-drugs (e.g. herbal products with psychoactive principles, new designer drugs, legal highs typically freely sold on internet web sites and not in the list of prohibited substances under law control in Italy at the time of the study) drugs for sexual enhancement (e.g. sildenafil, vardenafil, tadalafil and drugs sold in smart or sex shops as sexual enhancers), and finally anabolic steroids (possibly obtained by prescription or directly by internet web sites).

We chose the above reported groups of substances that seem to have in common the notion that they are legal “physically and psychologically enhancing” substances and the fact they are declared as the most commonly used by adolescents and young adults.

In this concern, it has to be said that they are legal in a deeply different sense.

In the case of fosfodiesterase-5-inhibitors (as sexual enhancers) and anabolic steroids (as physical enhancers), they are therapeutics and their use is subordinated to medical prescription; moreover, being scheduled as doping drugs, the use of anabolic steroids as “physical enhancers” is strictly forbidden. Nonetheless, they are freely sold on internet web sites and easily available for purchase.

The definition “Smart-drugs” was the one reported in the technical books published by the Italian National Institute of Health and at the time of interviews [19, 20] and the best known by interviewed population to define herbal products with psychoactive principles (e.g. Salvia Divinorum or “Spices”) and new psychoactive substances (e.g. synthetic cathinones or new designer drugs) legal in a transient sense since they are quickly scheduled as soon as are seized or when their health risk is disclosed. Nonetheless, also in this case they are freely sold on internet web sites and easily available for purchase.

Finally, physical performance enhancers enlisted in the study are in fact dietetic commodities and are usually defined as “non-banned performance-enhancing products” to distinguish them from anabolic steroids and the other “banned performance-enhancing products”. However, since without medical prescription they can present health risks, especially in the eventual association with anabolic steroids.

Data analysis

Statistical analyses were carried out using the SPSS software package release 18.0 [21] the R software package release 2.8.1 [22] the Confidence Interval Analysis software package release 2.0.0 [23] and the StatsDirect software, release 2.8.0 [23]. Frequencies and percentages (%) were calculated for all the categorical variables. Associations between the prevalence of substances consumption and habits/behaviour (sport, disco, friendship, parental relationship, etc.) of respondents were performed using the Pearson Chi-Square test \( \chi^2 \) or the Fisher’s exact test, as appropriate. The estimation of the risk factors of substance consumption was assessed using a logistic regression model. The covariates included in this model were selected using a bivariate analysis using the Pearson Chi-Square test \( \chi^2 \). The odds ratio were used to determine whether a particular exposure was a risk factor for a particular outcome, and to compare the magnitude of various risk factors for that outcome [25]. A p-value < 0.05 was used to establish statistical significance.

Furthermore, the associations between substances and lifestyles were investigated. The respondents were divided into groups and subgroups: 1) performing sports (regularly, irregularly or not performing); 2) going to disco or other recreational places (yes or no); 3) browsing Internet to know about and/or to purchase the substances (yes or no); 4) being influenced by friends in the knowledge and consumption of these substances (yes or no); 5) parents’ status (married/partnership,
separated, deceased); 6) relationship with the parents (excellent/good or bad with the mother, with the father or both). Associations between the prevalence of substance consumption and habits/behaviour (sport, disco, friendship, parental relationship, etc.) of respondents were performed using the Pearson Chi-Square test ($\chi^2$) or the Fisher’s exact test, as appropriate. A p-value < 0.05 was used to establish statistical significance.

Finally, the prevalence of polyconsumption with respect to the different associations with the analyzed substances, alcoholic beverages, energy drinks, smart-drugs, dietary supplements and anabolic steroids was performed using the Chi-Square Test ($\chi^2$) for the analysis of independent proportions. If it was not applicable, the analogous non-parametric Fisher’s Exact Test was used. A p-value < 0.05 was used to establish statistical significance.

**RESULTS**

**Prevalence in “physically and psychologically enhancing” non controlled substances use and perceived risk**

A total of 2621 participants aged 14-35 years completed the questionnaire with 100% response rate (Table 1).

The most consumed “physically and psychologically enhancing” non controlled substance was alcohol followed by energy drinks, physical performance enhancers, smart-drugs, sexual enhancers and finally anabolic androgenic steroids (Table 2). Age influenced alcohol use, being minimum during adolescence and maximum in young adults (18-24 years of age) with a prevalence of male consumption after adolescence (Table 2). Conversely, in case of energy drinks, the consumption trend was maximum during the adolescence, but it was still a prevailing male use. Surprisingly, physical performance enhancers were similarly used by both males and females with a significant decrease in the percentage of consumers just in young male adults. Whereas smart-drugs were similarly consumed by males of any age group, adolescent females use was significantly higher than that by older peers. Drugs for sexual enhancement were exclusively used by males with a statistical increase in the oldest age group. Finally, anabolic androgenic steroids were used by around 2% of the male respondents who did not attend any place, and with the influence of informed friends and users of these substances (88.0% influenced by peers vs 19.4% responders not influenced by friends).

Multiple reasons were proposed for the use of legal recreational substances (Table 3).

In case of alcohol, the main reason for drinking and far superior to the others was “to have fun without overdoing” in case of all age groups. Just in case of the older age group the reason of having fun overlapped with the tendency to accompany the meals. Similarly, the main reason to consume energy drinks was the nice taste, especially in case of adolescents (81.9%). Physical performance enhancers were considered products to both, replace physiological and nutritional shortcomings and to improve physical performance with highest and lowest percentage in the oldest age group, respectively. Smart-drugs were principally employed to feel emotions and energy, while drugs for sexual enhancement were clearly used for their medical indication. Surprisingly, in this latter case with the exception of 25-29 years age group, all the other males declared not only a self-administration but also a medical prescription from a doctor. Finally, respondents declared the use of androgenic anabolic steroids first to enhance their physical performance and second to supplement for nutritional or physiological deficiency. Alcohol was correctly perceived as a most dangerous legal recreation substance by more than 90% males and females of all the age groups, followed by smart-drugs, androgenic anabolic steroids and drugs for sexual enhancement, energy drinks and physical performance enhancers (Table 4). Adolescents generally showed a trend toward lower perception of health related harm for all the considered substances compared to older peers.

**Associations between consumption of legal recreational substances, lifestyles and relationships**

The consumption of alcoholic beverages was associated (with $p$-value < 0.001): with going to disco or to other recreational places (95.5% clubbers vs 63.2% responders who did not attend any place), with browsing Internet to know about and/or to purchase the substances (76.7% vs 68.6% non users) and with the influence of informed friends and users of these substances (88.0% influenced by peers vs 19.4% responders not influenced by friends).

The use of energy drinks was associated (with $p$-value < 0.001): with going to disco or to other recreational places (31.8% clubbers vs 16.6% responders who did not attend any place) and with the influence of informed friends and users of these substances (22.6% influenced by peers vs 12.9% respondents not influenced by friends).

Conversely, the intake of physical performance enhancers was related ($p$-value < 0.001) only with sport performing (20.8% regular performers vs 10.0% irregular performers and 8.1% not performing any sport).

The consumption of smart-drugs was associated ($p$-value < 0.001) with: going to disco or to other recreational places (6.3% clubbers vs 2.1% of respondents who did not attend any place), with browsing Internet to know about and/or to purchase the substances (5.1% users vs 2.3% non users), with the influence of friends with the knowledge and users of substances (those affected by the friends had a higher prevalence of being consumers of smart-drugs - 3.9% compared with 0.8% of the respondents who claimed not to be affected), and with the relationship with parents (those with a bad relationship with

**Table 1**

<table>
<thead>
<tr>
<th>Class age</th>
<th>Males</th>
<th>Females</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>14-17</td>
<td>216</td>
<td>188</td>
<td>404</td>
</tr>
<tr>
<td>18-24</td>
<td>387</td>
<td>394</td>
<td>781</td>
</tr>
<tr>
<td>25-29</td>
<td>292</td>
<td>292</td>
<td>584</td>
</tr>
<tr>
<td>30-35</td>
<td>420</td>
<td>432</td>
<td>852</td>
</tr>
<tr>
<td>Total</td>
<td>1315</td>
<td>1306</td>
<td>2621</td>
</tr>
</tbody>
</table>
### Legal substances use by Italian youth

#### Original articles and reviews

<table>
<thead>
<tr>
<th>Table 2</th>
<th>Prevalence of “at least once in the lifetime” use of legal recreational substances as age function</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Alcoholic beverages</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>14-17</td>
</tr>
<tr>
<td></td>
<td>%</td>
</tr>
<tr>
<td>Males</td>
<td>58.3</td>
</tr>
<tr>
<td>P-value (14-17 vs others)</td>
<td>-</td>
</tr>
<tr>
<td>Females</td>
<td>56.4</td>
</tr>
<tr>
<td>P-value (14-17 vs others)</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>57.4</td>
</tr>
<tr>
<td>P-value (14-17 vs others)</td>
<td>-</td>
</tr>
<tr>
<td><strong>Energy drinks</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>14-17</td>
</tr>
<tr>
<td></td>
<td>%</td>
</tr>
<tr>
<td>Males</td>
<td>40.7</td>
</tr>
<tr>
<td>P-value (14-17 vs others)</td>
<td>-</td>
</tr>
<tr>
<td>Females</td>
<td>20.7</td>
</tr>
<tr>
<td>P-value (14-17 vs others)</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>31.4</td>
</tr>
<tr>
<td>P-value (14-17 vs others)</td>
<td>-</td>
</tr>
<tr>
<td><strong>Physical performance enhancers</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>14-17</td>
</tr>
<tr>
<td></td>
<td>%</td>
</tr>
<tr>
<td>Males</td>
<td>19.9</td>
</tr>
<tr>
<td>P-value (14-17 vs others)</td>
<td>-</td>
</tr>
<tr>
<td>Females</td>
<td>12.2</td>
</tr>
<tr>
<td>P-value (14-17 vs others)</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>16.3</td>
</tr>
<tr>
<td>P-value (14-17 vs others)</td>
<td>-</td>
</tr>
<tr>
<td><strong>Smart drugs</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>14-17</td>
</tr>
<tr>
<td></td>
<td>%</td>
</tr>
<tr>
<td>Males</td>
<td>4.6</td>
</tr>
<tr>
<td>P-value (14-17 vs others)</td>
<td>-</td>
</tr>
<tr>
<td>Females</td>
<td>6.9</td>
</tr>
<tr>
<td>P-value (14-17 vs others)</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>5.7</td>
</tr>
<tr>
<td>P-value (14-17 vs others)</td>
<td>-</td>
</tr>
<tr>
<td><strong>Drugs for sexual enhancement</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>14-17</td>
</tr>
<tr>
<td></td>
<td>%</td>
</tr>
<tr>
<td>Males</td>
<td>2.3</td>
</tr>
<tr>
<td>P-value (14-17 vs others)</td>
<td>-</td>
</tr>
<tr>
<td>Anabolic androgenic steroids</td>
<td>14-17</td>
</tr>
<tr>
<td></td>
<td>%</td>
</tr>
<tr>
<td>Males</td>
<td>1.4</td>
</tr>
<tr>
<td>P-value (14-17 vs others)</td>
<td>-</td>
</tr>
<tr>
<td>Female</td>
<td>1.6</td>
</tr>
<tr>
<td>P-value (14-17 vs others)</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>1.5</td>
</tr>
<tr>
<td>P-value (14-17 vs others)</td>
<td>-</td>
</tr>
</tbody>
</table>
their mother had a higher prevalence of being consumers of smart-drugs - 6.4% compared to 4.4% of those with a bad relationship with the father and 2.1% of those who have a good/excellent relationship with both parents).

Unlike other investigated substances, the consumption of drugs for sexual enhancement was not associated with a specific lifestyle or relation to peers.

Finally, similar to what was observed for physical performance enhancers, the use of androgenic anabolic steroids was only related (p-value < 0.001) with sport performing (2.3% regular performers vs 0.1% irregular performers and 0.5% not performing any sport).

**Polyconsumption**

There was a significant association (p-value < 0.001) between consumption of alcoholic beverages, and that of energy drinks and of smart-drugs. Also, there was a significant association (p < 0.001) between the intake of anabolic steroids and consumption of alcoholic beverages, energy drinks and smart-drugs.

**Table 3**

Reasons for consumption of legal recreational substances as age function (multiple answers) expressed as percentage of chosen answers

<table>
<thead>
<tr>
<th>Alcoholic beverages</th>
<th>Age (years)</th>
<th>14-17</th>
<th>18-24</th>
<th>25-29</th>
<th>30-35</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>To have with meals</td>
<td>%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14-17</td>
<td>19.0</td>
<td>27.2</td>
<td>39.2</td>
<td>56.7</td>
<td>38.6</td>
<td></td>
</tr>
<tr>
<td>18-24</td>
<td>27.2</td>
<td>39.2</td>
<td>56.7</td>
<td>38.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-29</td>
<td>39.2</td>
<td>56.7</td>
<td>38.6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30-35</td>
<td>56.7</td>
<td>38.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>38.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Energy drinks</th>
<th>Age (years)</th>
<th>14-17</th>
<th>18-24</th>
<th>25-29</th>
<th>30-35</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>I like them. They are tasty</td>
<td>%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14-17</td>
<td>81.9</td>
<td>68.3</td>
<td>62.9</td>
<td>63.6</td>
<td>69.3</td>
<td></td>
</tr>
<tr>
<td>18-24</td>
<td>68.3</td>
<td>62.9</td>
<td>63.6</td>
<td>69.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-29</td>
<td>62.9</td>
<td>63.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30-35</td>
<td>63.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>69.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Physical performance enhancers</th>
<th>Age (years)</th>
<th>14-17</th>
<th>18-24</th>
<th>25-29</th>
<th>30-35</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>To replace physiological and for nutritional shortcomings</td>
<td>%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14-17</td>
<td>54.5</td>
<td>66.3</td>
<td>64.1</td>
<td>73.5</td>
<td>66.4</td>
<td></td>
</tr>
<tr>
<td>18-24</td>
<td>66.3</td>
<td>64.1</td>
<td>73.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-29</td>
<td>64.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30-35</td>
<td>73.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>66.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Smart-drugs</th>
<th>Age (years)</th>
<th>14-17</th>
<th>18-24</th>
<th>25-29</th>
<th>30-35</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>I like them. They give me energy</td>
<td>%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14-17</td>
<td>39.1</td>
<td>17.2</td>
<td>15.4</td>
<td>12.5</td>
<td>22.2</td>
<td></td>
</tr>
<tr>
<td>18-24</td>
<td>17.2</td>
<td>15.4</td>
<td>12.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-29</td>
<td>15.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30-35</td>
<td>12.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>22.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Drugs for sexual enhancement</th>
<th>Age (years)</th>
<th>14-17</th>
<th>18-24</th>
<th>25-29</th>
<th>30-35</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>They were prescribed by the doctor</td>
<td>%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14-17</td>
<td>20.0</td>
<td>25.0</td>
<td>0.0</td>
<td>24.1</td>
<td>20.9</td>
<td></td>
</tr>
<tr>
<td>18-24</td>
<td>25.0</td>
<td>0.0</td>
<td>24.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-29</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30-35</td>
<td>24.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>20.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Androgenic anabolic steroids</th>
<th>Age (years)</th>
<th>14-17</th>
<th>18-24</th>
<th>25-29</th>
<th>30-35</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>To replace physiological and for nutritional shortcomings</td>
<td>%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14-17</td>
<td>16.7</td>
<td>44.4</td>
<td>42.9</td>
<td>20.0</td>
<td>31.3</td>
<td></td>
</tr>
<tr>
<td>18-24</td>
<td>44.4</td>
<td>42.9</td>
<td>20.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-29</td>
<td>42.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30-35</td>
<td>20.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>31.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>To improve my performances</th>
<th>%</th>
<th>14-17</th>
<th>18-24</th>
<th>25-29</th>
<th>30-35</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>14-17</td>
<td>100.0</td>
<td>44.4</td>
<td>14.3</td>
<td>50.0</td>
<td>50.0</td>
<td></td>
</tr>
<tr>
<td>18-24</td>
<td>44.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-29</td>
<td>14.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30-35</td>
<td>50.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>50.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>To improve my physical appearance</th>
<th>%</th>
<th>14-17</th>
<th>18-24</th>
<th>25-29</th>
<th>30-35</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>14-17</td>
<td>0.0</td>
<td>11.1</td>
<td>57.1</td>
<td>40.0</td>
<td>28.1</td>
<td></td>
</tr>
<tr>
<td>18-24</td>
<td>11.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-29</td>
<td>57.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30-35</td>
<td>40.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>28.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Risk factors in legal recreational substances use

The main risk factor influencing the use of legal recreational substances was the peer pressure from informed and user friends (OR: 8.8), followed by the attendance to discos or other recreational places (OR: 5.4), being aged between 25 and 35 years (OR: 3.0), browsing Internet to know about and/or to purchase the substances, be male (OR: 2.1 and 2.5 respectively), have a bad relationship with the mother (OR: 2.1) and finally living outside the family (OR: 1.4).

DISCUSSION

The first obvious result of the present survey is that the most consumed legal recreational substance among adolescents and young adults is still alcohol, although other legal compounds are spreading [26, 27].

Nonetheless, as already demonstrated, there is a significant association between consumption of alcoholic beverages and of energy drinks [31, 32]. Thus, it is likely that with the passing of the years the two beverages are

Table 4

Perceived risk* for the different legal recreational substances

<table>
<thead>
<tr>
<th>Substances</th>
<th>Age (years)</th>
<th>14-17</th>
<th>18-24</th>
<th>25-29</th>
<th>30-35</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Alcohol beverages</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>89.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>92.1</td>
</tr>
<tr>
<td>Females</td>
<td>94.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>93.8</td>
</tr>
<tr>
<td>Total</td>
<td>91.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>92.9</td>
</tr>
<tr>
<td>Energy drinks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>48.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>56.7</td>
</tr>
<tr>
<td>Females</td>
<td>60.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>58.2</td>
</tr>
<tr>
<td>Total</td>
<td>54.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>57.4</td>
</tr>
<tr>
<td>Physical performance enhancers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>46.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>54.5</td>
</tr>
<tr>
<td>Females</td>
<td>51.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>57.7</td>
</tr>
<tr>
<td>Total</td>
<td>49.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>56.1</td>
</tr>
<tr>
<td>Smart-drugs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>56.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>67.7</td>
</tr>
<tr>
<td>Females</td>
<td>70.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>76.1</td>
</tr>
<tr>
<td>Total</td>
<td>63.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>71.4</td>
</tr>
<tr>
<td>Drugs for sexual enhancement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>50.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>62.2</td>
</tr>
<tr>
<td>Females</td>
<td>50.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>62.6</td>
</tr>
<tr>
<td>Total</td>
<td>50.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>62.4</td>
</tr>
<tr>
<td>Androgenic anabolic steroids</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>52.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>62.8</td>
</tr>
<tr>
<td>Females</td>
<td>54.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>60.3</td>
</tr>
<tr>
<td>Total</td>
<td>53.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>61.5</td>
</tr>
</tbody>
</table>

*Perceived risk expressed as percentage of positive answers to the question: “are you aware about the health related harm of considered substance?”.
increasingly used simultaneously to have fun, although the Mediterranean habit of consuming alcohol with meals persists especially in the older peers [33]. A third class of legal recreation substances whose intake is associated with that of alcohol and energy drinks are smart-drugs prevalent in younger males [34, 35].

Another sizable emerging consumption is that of physical performance enhancers, which is recognized as unsafe by half of the responders and are consumed to replace “perceived” nutritional deficiency and to improve performance [36, 37]. The reason of performance increase is shared with anabolic androgenic steroids, taken by a minority of responders and with drugs for sexual enhancement, used exclusively by males with a prevalence of older peers [38-40]. Surprisingly, physical performance enhancers which are dietary supplements and both, steroids and drugs for sexual enhancement, which are medicinal are similarly perceived as harmful to the health. In addition steroids consumers are more likely to use also alcohol, smart-drugs and energy drinks. Whereas recreational substances such as alcohol, energy drinks and smart-drugs were mainly consumed for fun, related to nightlife and associated to influence by peers and the use of internet, compounds enhancing physical performance were associated with training.

Considering all the above reported results and similar to what was already reported for illicit psychotropic drugs, the risk factors associated with consumption of above-reported substances are the influence of friends and the attendance to recreational places together with lack of consideration for family ties [41-43].

Although the present study has the important limitation of participants who cannot be perfectly representative of the Italian population (Italian cities to be investigated and related premises were established as a function of the capillary knowledge of the area by the interviewers) the huge sample size and its diffusion throughout the national territory support the study validity. In addition, it has to be reminded that results are based on self-reported answers to questionnaire with no objective assessment (e.g. consumption biomarkers in biological fluids) of personal statements.

Nonetheless, the most important message of this study is that together with alcohol, for centuries the most used legal recreational substance, other legal compounds of different nature and health related harm are of emergent use among adolescents and young adults. A typical trend of the 21st century is that these substances can be anonymously supplied by internet, where they are sold with alleged effects on mental, physical and sexual performance without any real evidence-based research. This is true for energy drinks, smart-drugs and physical performance enhancers whose advantages/disadvantages ratio is not systematically established and for androgenic anabolic steroids and drugs for sexual enhances administered without any real hormonal or sexual dysfunction [37].

Whereas some features of these new legal substances are typical of the 21st century, the risk factors associated to their use – nightlife, influence of peers and poor family ties – are common with those of classic illicit drugs and alcohol. Specifically, the bad relationship with the mother influencing the consumption is a conventional Italian (or Mediterranean) characteristic.

These results have implications for prevention and early intervention programs of new legal recreational substance use, which, similar to what is frequently advised for classical illicit drugs, should focus on information campaigns and awareness initiatives especially addressed to young male adults who go clubbing, live outside the family and show close links with peers.

**Contributions of authorship**

Roberta Pacifici, contributed mainly to the conception and design of the work, the analysis and interpretation of the data, the writing of the article and the approval of the final version for its publications. Ilaria Palmi, contributed to the analysis and interpretation of the data,
the writing of the article and the approval of the final version for its publications. Paolo Vian, contributed to the data collection, the interpretation of the data, the writing of the article and the approval of the final version for its publications. Alessandra Andreotti, contributed to the data collection, the interpretation of the data, the writing of the article and the approval of the final version for its publications. Claudia Mortali, contributed to the analysis and interpretation of the data, the writing of the article and the approval of the final version for its publications. Paolo Berretta, contributed to the critical review with important intellectual contributions and the approval of the final version for its publications. Luisa Mastrobattista, contributed to the analysis of the data, the critical review with important intellectual contributions and the approval of the final version for its publications. Simona Pichini, contributed to the conception and design of the work, the interpretation of the data, the writing of the article and the approval of the final version for its publications. Paolo Vian, contributed to the conception and design of the work, the critical review with important intellectual contributions and the approval of the final version for its publications.

Simona Pichini, contributed to the conception and design of the work, the interpretation of the data, the writing of the article and the approval of the final version for its publications. Claudia Mortali, contributed to the analysis and interpretation of the data, the writing of the article and the approval of the final version for its publications. Alessandra Andreotti, contributed to the data collection, the interpretation of the data, the writing of the article and the approval of the final version for its publications. Paolo Berretta, contributed to the critical review with important intellectual contributions and the approval of the final version for its publications. Luisa Mastrobattista, contributed to the analysis of the data, the critical review with important intellectual contributions and the approval of the final version for its publications.

Simona Pichini, contributed to the conception and design of the work, the interpretation of the data, the writing of the article and the approval of the final version for its publications. Paolo Vian, contributed to the conception and design of the work, the critical review with important intellectual contributions and the approval of the final version for its publications.

Luisa Mastrobattista, contributed to the analysis of the data, the critical review with important intellectual contributions and the approval of the final version for its publications. Simona Pichini, contributed to the conception and design of the work, the interpretation of the data, the writing of the article and the approval of the final version for its publications.

REFERENCES

22. R Development Core Team. R: A language and environ-


Supplementary Materials for

Emerging trends in consuming behaviours for non-controlled substances by Italian urban youth: a cross sectional study

Roberta Pacifici, Ilaria Palmi, Paolo Vian, Alessandra Andreotti, Claudia Mortali, Paolo Berretta, Luisa Mastrobattista and Simona Pichini

*Corresponding author:
Simona Pichini, Dipartimento del Farmaco, Istituto Superiore di Sanità, Viale Regina Elena 299, 00161 Rome, Italy. E-mail: simona.pichini@iss.it

Published on
Ann Ist Super Sanità 2016 Vol. 52, No. 1
DOI: 10.4415/ANN_16_01_da inserire

This PDF file includes:
Questionario ‘Nuovi consumi giovanili’
Progetto: Nuovi consumi giovanili e comportamenti indotti dall’assunzione di integratori, alcol, energy drink, smart-drugs e sostanze psicotrope, commissionato dall’Istituto Superiore di Sanità a EXPLORA e finanziato dal “Fondo per le politiche giovanili - anno 2011”

**QUESTIONARIO “NUOVI CONSUMI GIOVANILI”**

**SEZIONE A - INFORMAZIONI GENERALI**

1. Genere
   - Maschio
   - Femmina

2. Età (in anni compiuti)
   
3. Ultimo titolo di studio conseguito
   *(indicare una sola risposta)*
   - Licenza elementare
   - Licenza media
   - Diploma di scuola superiore
   - Laurea di primo livello
   - Laurea specialistica
   - Dottorato
   - Master
   - Specializzazione post-lauream

**SEZIONE B - STUDIO, LAVORO E CONDIZIONE ECONOMICA**

4. Al momento:
   *(indicare una sola risposta)*
   - Studio
   - Lavoro
   - Studio e saltuariamente lavoro
   - Lavoro e intanto studio
   - Sono alla ricerca del primo lavoro
   - Sono disoccupato, prima lavoravo
   - Altro___________________________

5. Se studi, come è il tuo rendimento?
   *(indicare una sola risposta)*
   - Ottimo
   - Buono
   - Sufficiente
   - Scarso

6. Se attualmente lavori, con quale modalità?
   *(è possibile indicare più risposte)*
   - Co.co.co (collaborazione coordinata e continuativa)
   - Contratto a progetto
   - Contratto a tempo determinato
   - Contratto a tempo indeterminato
   - Lavoro occasionale
   - Libero professionista
   - Non ho un contratto
   - Servizio civile
   - Altro___________________________
7. Da dove provengono principalmente le tue entrate mensili?  
(indicare una sola risposta)  
☐ Compenso da lavoro  
☐ Sostegno, paga della famiglia  
☐ Reddito del convivente/coniuge  
☐ Sussidi (disoccupazione, borse di studio …)  
☐ Rendita da investimento  
☐ Rimborso Servizio Civile  
☐ Altro___________________________

8. Attualmente con chi vivi?  
(indicare una sola risposta)  
☐ Famiglia d’origine  
☐ Un solo genitore, mia madre  
☐ Un solo genitore, mio padre  
☐ Altri giovani (amici, conoscenti, ecc)  
☐ Compagno/a, coniuge  
☐ Solo/a  
☐ Altro___________________________

9. I tuoi genitori:  
(indicare una sola risposta)  
☐ Sono sposati/conviventi  
☐ Sono in via di separazione  
☐ Sono separati/divorziati  
☐ Sono deceduti entrambi  
☐ È deceduta mia madre  
☐ È deceduto mio padre

10. Come consideri il rapporto con tua madre o con la persona che ricopre il ruolo materno?  
(indicare una sola risposta)  
☐ Ottimo  
☐ Buono  
☐ Potrebbe andare meglio  
☐ Pessimo (conflittuale)  
☐ Assenza/Indifferenza di rapporto  
☐ Non ho una figura di riferimento

11. Come consideri il rapporto con tuo padre o con la persona che ricopre il ruolo paterno?  
(indicare una sola risposta)  
☐ Ottimo  
☐ Buono  
☐ Potrebbe andare meglio  
☐ Pessimo (conflittuale)  
☐ Assenza/Indifferenza di rapporto  
☐ Non ho una figura di riferimento

12. Che rapporto hai con i tuoi amici?  
(indicare una sola risposta)  
☐ Ho un buon rapporto con tutti  
☐ Ho un buon rapporto con uno o pochi amici  
☐ Non riesco a stabilire rapporti soddisfacenti  
☐ Non ho amici, ma vorrei averne  
☐ Non ho amici, amo stare da solo  
☐ Altro_________________________
13. Cosa cerchi principalmente in un’amicizia?
(indicare una sola risposta)
□ Complicità
□ Divertimento
□ Sicurezza
□ Affetto
□ Non saprei
□ Altro___________________________

14. Che rapporto hai con il tuo compagno/a, coniuge?
(indicare una sola risposta)
□ Andiamo d’accordo
□ Litighiamo spesso
□ Non ho un compagno/a e non voglio impegnarmi sentimentalmente
□ Ancora non ho trovato la persona giusta
□ Altro___________________________

SEZIONE D - TEMPO LIBERO

15. Come trascorri solitamente il tempo libero ed in particolare il weekend?
(indicare un massimo di 5 attività, alle quali si dedica più tempo)
□ Guardando la TV
□ Insieme con gli amici
□ Insieme con la famiglia
□ Insieme con la ragazza/o o compagna/o
□ Coltivando i miei hobby e interessi
□ Davanti al PC, specialmente navigando su Internet
□ Facendo attività sportive
□ Giocando con la Play station
□ Facendo volontariato
□ Andando a mangiare al ristorante o in pizzeria
□ In un centro commerciale
□ In una discoteca
□ Al bar, pub o locali
□ Al cinema o al teatro
□ Ad un concerto
□ Andando a vedere manifestazioni sportive
□ Ascoltando musica
□ Facendo una gita
□ In Parrocchia o Oratorio
□ Altro___________________________

16. Pratichi sport?
(indicare una sola risposta)
□ Sì, a livello agonistico
□ Sì, mi alleno in palestra regolarmente
□ Sì, all’aria aperta con continuità
□ Sì, ma con discontinuità
□ No, non posso permettermelo (per motivi economici o per mancanza di tempo)
□ No, non mi piace

SEZIONE E – STILI DI VITA E CONSUMI

FUMO
17. Fumi?
□ Sì
□ No (passare alla domanda n. 20)

18. A che età hai cominciato a fumare?
|   |   |   |   |
19. Quante sigarette fumi in media al giorno?
☐ Meno di 5
☐ Da 5 a 9
☐ Da 10 a 14
☐ Da 15 a 19
☐ Da 20 a 24
☐ 25 sigarette o più

BEVANDE ALCOLICHE
20. Assumi bevande alcoliche?
☐ Sì
☐ No (passare alla domanda n. 28)

21. Quali sono le bevande alcoliche che consumi maggiormente?
(è possibile indicare più risposte)
☐ Birra
☐ Vino
☐ Ready to drink
☐ Cocktail alcolico
☐ Super alcolico
☐ Altro___________________________

22. Con quale frequenza?
(indicare una sola risposta)
☐ Solo in occasioni particolari e comunque di rado (es. una festa di compleanno)
☐ Solo nel fine settimana
☐ Nel fine settimana e anche durante la settimana, ma non tutti i giorni
☐ Tutti i giorni della settimana

23. Qual è il tuo consumo medio di queste bevande durante tutta la settimana?
<table>
<thead>
<tr>
<th>Birra</th>
<th>Vino</th>
<th>Superalcolico</th>
<th>Cocktail alcolico</th>
<th>Ready to drink</th>
</tr>
</thead>
<tbody>
<tr>
<td>bottiglia 33 cl</td>
<td>bicchiere 125 ml</td>
<td>bicchiere 40 ml</td>
<td>bicchiere 40 ml</td>
<td>bicchiere 150 ml</td>
</tr>
<tr>
<td>☐ 1</td>
<td>☐ 2 (1/4 di litro)</td>
<td>☐ 1</td>
<td>☐ 2</td>
<td>☐ 1</td>
</tr>
<tr>
<td>☐ 2</td>
<td>☐ 4 (1/2 di litro)</td>
<td>☐ 2</td>
<td>☐ 2</td>
<td>☐ 2</td>
</tr>
<tr>
<td>☐ 3</td>
<td>☐ 8 (1 litro)</td>
<td>☐ 3</td>
<td>☐ 3</td>
<td>☐ 3</td>
</tr>
<tr>
<td>☐ Più di 3</td>
<td>☐ Più di 8 (più di 1 litro)</td>
<td>☐ Più di 3</td>
<td>☐ Più di 3</td>
<td>☐ Più di 3</td>
</tr>
</tbody>
</table>

24. Per quale motivo bevi?
(indicare al massimo 2 risposte)
☐ Per accompagnare i pasti
☐ Per divertirsi senza esagerare (es. 1 aperitivo, 1 cocktail o 1 birra con gli amici)
☐ Per “sbarrarmi” (es. bere fino ad ubriacarsi)
☐ Per dimenticare i miei problemi
☐ Altro ______________________

25. Con chi preferisci bere solitamente?
(indicare una sola risposta)
☐ Da solo
☐ Con amici
☐ Sia da solo che con gli amici
☐ Altro ______________________

26. In quale situazione preferisci bere solitamente?
(indicare al massimo 2 risposte)
☐ In casa
☐ In discoteca o feste
☐ In giro per locali (bar, pub)
☐ Al ristorante
☐ Altro ______________________
27. Hai mai pensato che il tuo consumo di alcol fosse eccessivo?
☐ Sì
☐ No

28. Sei a conoscenza dei danni che potrebbe causare l'alcol?
☐ Sì
☐ No

■ ENERGY DRINK
29. Sai cosa sono gli energy drink?
☐ Sì
☐ No (passare alla domanda n. 35)

30. Bevi energy drink?
☐ Sì
☐ No (passare alla domanda n. 34)

31. Con quale frequenza?
(indicare una sola risposta)
☐ Solo in occasioni particolari e comunque di rado (es. una festa di compleanno)
☐ Solo nel fine settimana
☐ Nel fine settimana ed anche durante la settimana, ma non tutti i giorni
☐ Tutti i giorni della settimana

32. Mediamente il tuo consumo a quante lattine equivale?
(indicare una sola risposta)
☐ 1 lattina a settimana
☐ 2-3 lattine a settimana
☐ 3-4 lattine a settimana
☐ 1 lattina al giorno tutti i giorni
☐ Più di 1 lattina ogni giorno
☐ Più lattine durante il fine settimana o in occasioni particolari (indicare il numero:___________)

33. Per quale motivo bevi energy drink?
(indicare al massimo 2 risposte)
☐ Mi piace, ha un buon sapore
☐ Mi piace, mi dà emozioni
☐ Ne ho bisogno, mi sento più sicuro di me e vitale
☐ Mi influenzano i miei amici
☐ Altro___________________________

34. Sei a conoscenza dei danni che potrebbe causare un uso eccessivo di energy drink?
☐ Sì
☐ No

■ CAFFÈ
35. Bevi caffè?
☐ Sì, ogni giorno
☐ Sì, ma non tutti i giorni (passare alla domanda n. 37)
☐ No (passare alla domanda n. 37)

36. Quanti caffè bevi al giorno?
☐ 1 tazzina
☐ 2-3 tazzine
☐ 4-5 tazzine
☐ Più di 5 tazzine

■ INTEGRATORI
37. Fai uso di integratori?
☐ Sì
☐ No (passare alla domanda n. 40)
38. Dove li acquisti?
(è possibile indicare più risposte)
- Negozio sportivi
- Palestra
- Farmacia
- Internet
- Altro ___________________________

39. Per quale motivo ne fai uso?
(indicare al massimo 2 risposte)
- Per sopperire a delle carenze (fisiologiche o alimentari)
- Per migliorare le mie prestazioni
- Per migliorare il mio aspetto fisico
- Altro ___________________________

40. Sei a conoscenza dei danni che potrebbe causare un uso scorretto di integratori?
- Sì
- No

SOSTANZE PER DIMAGRIRE
41. Fai uso di sostanze per dimagrire?
- Sì
- No (passare alla domanda n. 43)

42. Che tipo di sostanza utilizzzi?
(è possibile indicare più risposte)
- Prodotto di erboristeria
- Farmaco
- Altro ___________________________

SMART-DRUGS
43. Sai cosa sono le smart-drugs?
- Sì
- No (passare alla domanda n. 49)

44. Attraverso quale canale ne sei venuto a conoscenza?
(indicare una sola risposta)
- Amici/conoscenti
- Libri/riviste
- Internet
- Smart-shop
- Altro ___________________________

45. Fai uso di smart-drugs?
- Sì
- No (passare alla domanda n. 48)

46. Per quale motivo ne fai uso?
(indicare al massimo 2 risposte)
- Mi piace, mi sento più energico
- Mi piace, mi dà emozioni
- Ne ho bisogno, mi aiuta ad affrontare i miei problemi
- Mi aiuta a socializzare
- Mi influenzano i miei amici
- Altro ___________________________
47. In quale situazione fai uso di smart-drugs?
(indicare al massimo 2 risposte)
- Da solo
- In casa di amici
- In discoteca o feste
- Quando giro per locali
- Altro ______________________

48. Sei a conoscenza dei danni che potrebbero causare le smart-drugs?
- Sì
- No

49. Sai cosa sono le spice?
- Sì
- No (passare alla domanda n. 55)

50. Attraverso quale canale ne sei venuto a conoscenza?
(indicare una sola risposta)
- Amici
- Libri/riviste
- Internet
- Smart-shop
- Altro___________________________

51. Fai uso di spice?
- Sì
- No (passare alla domanda n. 54)

52. Per quale motivo ne fai uso?
(indicare al massimo 2 risposte)
- Mi piace, mi sento più energico e attivo
- Mi piace, mi dà emozioni
- Ne ho bisogno, mi aiuta ad affrontare i miei problemi
- Mi aiuta a socializzare
- Mi influenzano i miei amici
- Altro ______________

53. In quale situazione ne fai uso solitamente?
(indicare al massimo 2 risposte)
- Da solo
- In casa di amici
- In discoteca o feste
- Quando giro per locali
- Altro ______________________

54. Sei a conoscenza dei danni che potrebbero causare le spice?
- Sì
- No

55. Sai cos’è il Viagra?
- Sì
- No (passare alla domanda n. 60)
56. Attraverso quale canale ne sei venuto a conoscenza?  
(Indicare una sola risposta)  
☐ Medici  
☐ Amici  
☐ Libri/riviste  
☐ Internet  
☐ Smart-shop  
☐ Altro ______________________

57. Hai mai fatto uso del Viagra o farmaci simili?  
☐ Sì  
☐ No (passare alla domanda n. 59)

58. Per quale motivo ne fai, ne hai fatto uso?  
(Indicare una sola risposta)  
☐ Mi è stato prescritto dal medico  
☐ Per migliorare le mie prestazioni sessuali

59. Sei a conoscenza dei danni che potrebbe causare un uso scorretto del Viagra o farmaci simili?  
☐ Sì  
☐ No

■ SOSTANZE E/O FARMACI PER LA CONCENTRAZIONE, ATTENZIONE, MEMORIA, PER CONCILIARE IL SONNO

60. Utilizzi sostanze e/o farmaci che ti aiutano per la concentrazione, attenzione, memoria, per conciliare il sonno?  
☐ Sì  
☐ No

61. Sei a conoscenza dei danni che potrebbe causare un uso scorretto delle sostanze e/o farmaci che ti aiutano per la concentrazione, attenzione, memoria, per conciliare il sonno?  
☐ Sì  
☐ No

■ STEROIDI ANABOLIZZANTI

62. Fai uso di steroidi anabolizzanti?  
☐ Sì  
☐ No (passare alla domanda n. 65)

63. Dove li acquisti?  
(è possibile indicare più risposte)  
☐ Negozi sportivi  
☐ Palestra  
☐ Farmacia  
☐ Internet  
☐ Altro ______________________

64. Per quale motivo ne fai uso?  
(Indicare al massimo 2 risposte)  
☐ Per sopperire a delle carenze (fisiologiche o alimentari)  
☐ Per migliorare le mie prestazioni  
☐ Per migliorare il mio aspetto fisico  
☐ Altro ______________________

65. Sei a conoscenza dei danni che potrebbe causare un uso eccessivo di steroidi anabolizzanti?  
☐ Sì  
☐ No
**ACQUISTI DI SOSTANZE SU INTERNET**

66. Ti è mai capitato di acquistare su internet le sostanze oggetto del questionario?
- Sì
- No (passare alla domanda n. 68)

67. Se sì, quali ti è capitato di acquistare?
(è possibile indicare più risposte)
- Integratori
- Sostanze dimagranti
- Smart-drugs
- Spice
- Viagra
- Sostanze e/o farmaci per la concentrazione, attenzione, memoria, per conciliare il sonno
- Steroidi anabolizzanti

68. Pensi che sia sicuro fare questo genere di acquisti tramite internet?
- Sì
- No

LUOGO DI SOMMINISTRAZIONE:

__________________________________________________________

DATA: [___] / [___] / 2013
ORA: [___].[___]

IL SOMMINISTRATORE: _______________________________________