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Minors and drug-facilitated sexual assaults: Between submission and chemical vulnerability

Menores y agresiones sexuales facilitadas por drogas: Entre la sumisión y la vulnerabilidad química

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Abstract

Drug-facilitated sexual assault (DFSA) is a topic of growing social concern in recent years. Despite this, few empirical studies carried out in Spain have analysed the phenomenon from a preventive approach. The aim of this study, in addition to providing new evidence on DFSA, specifically in minors, was to identify possible associated variables, thus contributing to a better understanding of the problem and to the design of more effective prevention policies. To this end, a survey was carried out among minors in the autonomous community of Galicia. A total of 7,181 students aged 12 to 17 ($M = 14.79$; $SD = 1.57$) participated. Data collection was carried out by means of a self-administered questionnaire on paper. Data concerning DFSA were collected by means of specific items, piloted beforehand. Screening instruments for problem drug use (AUDIT, CAST, CRAFFT and EUPÍ-a) were also used. The results allow us to estimate the rate of victimisation by DFSA in Galician minors at 1.7%, of which only 11.4% would have reported it. Beyond the socio-demographic profile of the victims (females in 2 out of 3 cases), they present different patterns with regard to the pattern of problematic consumption of alcohol and other substances and the pattern of problematic use of the Internet and social networks, with a significantly higher prevalence of online risk behaviours. This suggests that this phenomenon goes far beyond sexual violence, so it is necessary to address it at a preventive level from a comprehensive perspective, including educational and public health perspectives.

Keywords: DFSA, chemical submission, chemical vulnerability, adolescents, sexual assaults.

Resumen

Las agresiones sexuales facilitadas por drogas (DFSA) constituyen un tópico que viene suscitando una creciente preocupación social en los últimos años. Pese a ello, son pocos los trabajos empíricos llevados a cabo en España que hayan analizado el fenómeno desde un enfoque preventivo. El objetivo de este trabajo, además de aportar nueva evidencia respecto a las DFSA, concretamente en el ámbito de los menores, ha sido identificar posibles variables asociadas, contribuyendo así a comprender mejor el problema y a diseñar políticas de prevención más eficaces. Para ello se realizó una encuesta entre menores de la comunidad autónoma gallega. Participaron 7.181 estudiantes de 12 a 17 años ($M = 14,79$; $DT = 1,57$). La recogida de datos se realizó mediante un cuestionario autoadministrado en papel. Los datos referentes a las DFSA fueron recogidos mediante ítems específicos, pilotados previamente. Se utilizaron también instrumentos para el cribado de consumos problemáticos (AUDIT, CAST, CRAFFT y EUPÍ-a). Los resultados permiten estimar la tasa de victimización por DFSA en menores gallegos en un 1,7%, de los que únicamente habrían denunciado el 11,4%. Más allá del perfil sociodemográfico de las víctimas (mujeres en 2 de cada 3 casos), éstas presentan patrones diferenciados respecto al patrón de consumo problemático de alcohol y otras sustancias y al patrón de uso problemático de Internet y redes sociales, con una prevalencia significativamente mayor de conductas de riesgo *online*. Ello sugiere que este fenómeno va mucho más allá de la violencia sexual, por lo que es preciso abordarlo a nivel preventivo desde una perspectiva integral, incluyendo la perspectiva educativa y de salud pública.

Palabras clave: DFSA, sumisión química, vulnerabilidad química, adolescentes, agresiones sexuales.

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Drug-Facilitated Sexual Assault (DFSA) is an issue which has raised growing social concern in recent years (Ministerio de Justicia, 2022). While this justifies the need for empirical data to quantify and characterize the problem, it is rather difficult to estimate the real figures and, consequently, to be able to assess its true magnitude. This is due mainly to two factors. Firstly, the existing conceptual or terminological confusion results in a lack of precision when defining and differentiating possible cases. While the terms “chemical submission” (CS), “chemical vulnerability” (CV), and “drug-facilitated sexual assault” (DFSA) are often used interchangeably, there are important nuances that should be taken into account. Chemical submission consists of the subjugation of a person’s will, or the modification of their behaviour, through the surreptitious administration of a psychoactive substance in order to commit a crime (López-Rivadulla et al., 2005). Although it may occur for the purpose of committing any type of crime (assault, robbery...), it is mostly linked to crimes of a sexual nature. In these cases, the English acronym DFSA (“Drug-Facilitated Sexual Assault”) is recommended as this refers to sexual assaults committed when the victim is under the influence of some substance. Traditionally, two types of DFSA have been found: premeditated or proactive DFSA, in which the assailant surreptitiously administers an incapacitating substance to the victim in order to subdue them sexually (thus, CS), and opportunistic DFSA, where the victim voluntarily consumes the substance before being assaulted (García-Repetto & Soria, 2011). In the latter case, instead of chemical submission (CS), it would be more correct to speak of chemical vulnerability (CV) (Burillo-Putze, López-Hernández, Expósito-Rodríguez & Dueñas-Laita, 2013). Using each of these terms appropriately is essential, given the implications it has at the epidemiological and prevention level.

Secondly, there is a scarcity of empirical studies in Spain that have focused on estimating the real prevalence of DFSA. Although much of the published research agrees that DFSA could account for around 20-30% of sexual assaults (McGregor et al., 2004; Panyella-Carbó, Agustina & Martín-Fumadó, 2019; Quintela-Jorge, Cruz-Landeira & García-Caballero, 2014; Xifró-Collsamata et al., 2015), most of these studies have been carried out in clinical or forensic settings (Anderson et al., 2017; Cruz-Landeira, Quintela-Jorge & López-Rivadulla, 2008; García-Repetto & Soria, 2014; Hindmarch, ElSohly, Gambles & Salamone, 2001; Hurley, Parker & Wells, 2006; Navarro-Escayola & Vega-Vega, 2013; Panyella-Carbó et al., 2019; Quintela-Jorge et al., 2014; Xifró-Collsamata et al., 2015). Therefore, they only include victims who reported the assault and/or requested medical care. Taking into account the low rates of complaints and consultations of which some studies warn (Barreiro et al., 2020), this could imply an underestimation

of the size of the problem. Moreover, less is known when the youngest age groups are involved since, although some authors have warned of the high incidence of cases among minors (McGregor et al., 2004), little evidence has been provided in this regard. In the exploratory study by Barreiro et al. (2020), the percentage of young people/adolescents between 14 and 24 years of age who may have been victims of DFSA is estimated at 2.9%.

Beyond these two major limitations, it is also important to underline the paucity of empirical work carried out from a preventive perspective, aimed at identifying the variables that may lie at the root of all these issues. Much of the research has focused on analysing, directly or indirectly, the role that alcohol and substance use may play as one of the major risk factors for sexual assaults (Altell, Martí & Missé 2015; Anderson et al., 2017; Caamano-Isorna, Adkins, Moure-Rodríguez, Conley & Dick, 2021; Graham, Bernards, Abbey, Dumas & Wells, 2014; Hughes, Anderson, Morleo & Bellis, 2008). As early as 2008, the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) published a monograph in which it warned that the problem was becoming a growing trend, linking it specifically to the growing patterns of binge drinking and the use of new psychoactive substances (Olszewski, 2009). Although the idea has spread in recent years that certain drugs such as scopolamine (more commonly known as “burundanga”) are behind a many of the DFSA cases, scientific evidence points to alcohol, ahead of cannabis and benzodiazepines, as the main substance involved in this type of aggression (Isorna & Rial, 2015; Isorna, Souto, Rial, Alías & McCartan, 2017). Research carried out in Spain found the alcohol detection rate in victims to be over 45% (García-Repetto & Soria, 2014; Panyella-Carbó et al., 2019; Quintela-Jorge et al., 2014; Rodríguez-Pérez, 2020; Xifró-Collsamata et al., 2015), a level in line with results of studies in other countries, such as the United Kingdom (Scott-Ham & Burton, 2005), Canada (Du Mont et al., 2010), USA (Hagan & Reidy, 2015; Hindmarch et al., 2001; Juhascik et al., 2007), Australia (Hurley et al., 2006) and South Africa (Tiemensma & Davies, 2018). Likewise, drug detection rates were between 20 and 40%, with benzodiazepines the most frequently found substance (García-Repetto & Soria, 2014; Panyella-Carbó et al., 2019; Quintela-Jorge et al., 2014; Rodríguez-Pérez, 2020). Other substances such as cannabis, cocaine or amphetamines were detected in similar percentages in Spain (Panyella-Carbó et al., 2019; Quintela-Jorge et al., 2014; Rodríguez-Pérez, 2020; Xifró-Collsamata et al., 2015), also coinciding with some British, Canadian and American studies (Du Mont et al., 2010; ElSohly & Salamone, 1999; Scott-Ham & Burton, 2005).

In sum, the different studies coincide in pointing out that DFSAs constitute a truly complex phenomenon, and one not only associated with substance use. Some authors

suggest that it is necessary to approach the problem from a broader perspective, including a wider range of variables (Lorenz & Ullman, 2016; Neilson et al., 2018) and involving the use of pornography, affective sexual education, or the use of social networks (Ballester, Rosón & Facal, 2020; Rodríguez-Castro, Martínez-Román, Alonso-Ruido, Adá-Lameiras & Carrera-Fernández, 2021).

For all the above reasons, the present exploratory empirical study is designed to meet the general objective of contributing to a better understanding of the phenomenon of DFSA in adolescence. We intend, on the one hand, to provide new data on the magnitude of the problem and, on the other, to try to identify possible associated variables, especially in relation to both the use of alcohol and other substances, as well as Internet and social network use. More specifically, it is intended: (1) to report the rates of DFSA found in minors in the autonomous community of Galicia; (2) to estimate the percentage of cases reported and those that remain unreported, or in which medical care is not even requested; (3) to attempt a characterisation of the victim's profile, not only from the sociodemographic perspective, but also from substance use habits and Internet and social network use, as well as contextual variables such as habitual participation in binge drinking sessions. All this not only has the aim of contributing to quantifying, describing and characterising the problem, but also to better understand it and, consequently, to guide new prevention policies. Lastly, while at an empirical level this study does not set itself the specific objective of delimiting which DFSA cases may be defined as chemical submission and which aspects as chemical vulnerability, we hope that all the information collected will contribute to a development of the discussion in this regard.

Method

Participants

To meet the proposed objective, a selective methodology was employed consisting of a survey administered in paper format among secondary students from schools in the four provinces of Galicia. Sample selection was carried out by intentional sampling, with a total of 47 schools (38 state and 9 private/state supported [*concertado*]) agreeing to take part. Participants had to be underage students between 12 and 17 years of age. Exclusion criteria were refusal to participate and the presence in the questionnaires of a high percentage of missing values or an inconsistent response pattern. The initial sample consisted of 7,339 adolescents, although 158 were eliminated for not meeting the inclusion criteria or presenting some exclusion criteria. The final sample comprised 7,181 students, aged between 12 and 17 years ($M = 14.79$; $SD = 1.57$). Participants in compulsory secondary education (ESO) made up 71.9% of the sample, and 28.1% were in the higher secondary school level, the

baccalaureate (BAC). In terms of age groups, 23.9% were aged 12-13 years, 38.1% 14-15, and the remaining 38% 16-17. Those indicating "female" when asked about their gender comprised 50.8%, while 48% chose the "male" and 1.2% the "other gender" options, respectively.

Instruments

Data collection was carried out using a paper-based self-administered questionnaire divided into four sections. The first collected information on sociodemographic variables such as age, gender or course and on different aspects linked to Internet and social network use. The second section contained a small scale made up of six items related to DFSA, used in the exploratory study of Barreiro et al. (2020) with an acceptable internal consistency ($\alpha = .79$) and a funnel structure (Item 1: "*Has anyone ever invited you to drink alcohol or use other drugs in an attempt to flirt with you?*", Item 2: "*Has anyone ever given you alcohol or other drugs to try to take sexual advantage of you?*", Item 3: "*Have you ever woken up disoriented and with the suspicion that you might have been drugged?*", Item 4: "*Has anyone ever taken sexual advantage of you after giving you alcohol or other drugs?*", Item 5: "*If so, did you go to emergency or any medical service?*" and Item 6: "*Did you report it?*"). All items had a dichotomous response format (0 = No, 1 = Yes). The third block contained questions referring to substance use habits in the last year (alcohol, tobacco, cannabis, drunkenness, use of hookahs, participation in binge drinking sessions [*botellones*], etc.), and the fourth included three specific scales for screening problematic consumption: the *Alcohol Use Disorders Identification Test* (AUDIT), the *Cannabis Abuse Screening Test* (CAST), and the *Abuse Screening Test* (CRAFT). The *Problematic Internet Use Scale for Adolescents* (EUPI-a) was also included.

AUDIT was developed by the World Health Organization (WHO) as a screening instrument for problematic alcohol use (Saunders, Aasland, Amundsen & Grant, 1993; Saunders, Aasland, Babor, De La Fuente & Grant, 1993). It consists of ten Likert-type items assessing the amount and frequency of drinking (items 1-3), possible symptoms of dependence (items 4-6) and problems related to alcohol use (items 7-10). The global score can range from 0 to 40. A cut-off point of 4 was used, as in the validation study by Rial, Golpe, Braña & Varela (2017). The internal consistency obtained was very high ($\alpha = .93$).

CAST is a tool developed in France as part of the ESCAPAD survey (Beck, Legleye & Observatoire français des drogues et des toxicomanies, 2003). It consists of six Likert-type items with five response options ("Never" [0], "Rarely" [1], "Sometimes" [2], "Quite often" [3] and "Very often" [4]). Two correction options are included in the literature: CAST-f (*Full*), in which the score for each item ranges from 0 to 4 and the final score from 0 to 24; and CAST-b (*Binary*), in which each item scores 0 or 1 and the final score oscillates between 0 and 6. Our study used the

full version with a cut-off point of 4, following the recent validation with Spanish adolescents by Rial et al. (2022). The internal consistency obtained was high ($\alpha = .86$).

CRAFFT was developed by the Center for Adolescents Substance Abuse Research (CeASAR) (Knight et al., 1999) as a tool for early detection of risky use of alcohol and other substances in adolescents. It is made up of three filter items and six items that constitute the CRAFFT itself. Following the recommendations of the validation study carried out with Spanish adolescents by Rial et al. (2018), a cut-off score of 2 was applied. Internal consistency was similar to that obtained in the original study ($\alpha = .77$).

Finally, the EUPI-a scale was developed by Rial, Gómez, Isorna, Araujo and Varela in 2015 as a screening instrument for problematic internet use (PIU) in Spanish adolescents. It consists of 11 items with Likert-type responses with five response options (from “Never” [0] to “Always” [4]). The final score ranges from 0 to 44, and a score greater than 16 is considered to indicate PIU (Rial et al., 2015). Internal consistency was also high ($\alpha = .88$).

Procedure

Data collection took place throughout the 2020/2021 academic year in the classrooms of the schools themselves, in small groups and by researchers with experience in this type of task. A pilot test was carried out with a sample of 50 subjects from the same population under study in order to estimate the time needed to complete the questionnaire, to check the questions were understood correctly, and to anticipating possible doubts or difficulties in data collection. The time taken to complete the questionnaire ranged from 20 to 25 minutes, and there were no doubts or difficulties. The participants were previously informed of the purpose of the study. Participation was voluntary and unpaid, and the anonymity and confidentiality of responses was guaranteed at all times. The study had the consent and approval of the school managements and the respective parent associations. Parents were sent an informative letter expressly indicating the possibility of rejecting participation in the study, for the purpose which their children had to provide a letter signed by one of their parents. The study protocol was approved by the Bioethics Committee of the University of Santiago de Compostela (code: USC-035/2021).

Data analysis

Before the analysis itself, data filtering was carried out to check for the presence of inconsistent response patterns and missing data. Missing values analysis was done following the appropriate guidelines (Rial, Rojas & Varela, 2001), and it was verified that non-response did not exceed 10% in any of the questionnaire variables and, at the same time, the distribution of the missing cases followed a random distribution. To detect possible inconsistencies, contingency

tables were created between the related variables, although no contradictory cases were detected.

First, a descriptive analysis was carried out by calculating frequencies and percentages, as well as central tendency and dispersion statistics. This was followed by a bivariate tabulation, with chi square (χ^2) tests of independence and the calculation of Cramer's V as an estimator of the possible effect size. The analyses were carried out with the statistical package IBM SPSS Statistics 25 (IBM SPSS Statistics for Windows, 2017).

Results

Table 1 shows the rates of DFSA, with 22.8% of minors reporting having been invited on some occasion to drink alcohol or use other drugs with the intention of “flirting”, while 4.2% were given some substance to try so that they could be “taken advantage of”, 2% woke up at some point feeling disoriented and suspecting they may have been drugged and, finally, 1.7% stated that they had been taken advantage of at some point after having been given alcohol or other drugs. It should also be noted that, of these, only 19.7% went to a medical centre and 11.4% reported it.

The segmental analysis shows that, in general, the percentages were higher among female participants than male participants, except in the case of item 3 (“*Have you ever woken up disoriented and with the suspicion that you might have been drugged?*”), where the differences were not significant. These results show that girls tended to suffer this problem significantly more than boys (1.9% vs. 1.2%), but that they reported it much less (5.3% vs. 18.4%).

Regarding differences by age group, the percentages of affirmative responses for items 1, 2 and 4 (“*Has anyone ever invited you to drink alcohol or use other drugs in an attempt to flirt with you?*”, “*Has anyone ever given you alcohol or other drugs to try to take sexual advantage of you?*” and “*Has anyone ever taken sexual advantage of you after giving you alcohol or other drugs?*”) were significantly higher in the older age groups. This indicates that it is a problem that increases with age (the victimization rate rises from 0.2% in the 12-13 age group to 2.6% in the 16-17 age group), but that it is rarely reported, regardless of the victim's age. In any case, the fact that for items 3, 5 and 6 (“*Has anyone ever woken up disoriented and with the suspicion that you might have been drugged?*”, “*If so, did you go to emergency or any medical service?*”, and “*Did you report it?*”) the differences are not significant suggests that this type of interpretation should be made with caution.

Data were also analysed from the perspective of the “victim's” sociodemographic profile, for which the 119 cases responding affirmatively to item 4 were selected. Figure 1 shows that 62.5% of the “victims” were identified as female and 37.5% as male. Although 59.7% belonged to the 16-17 age group, 41.3% had not yet reached the age of 16.

Table 1. DFSA rates (global and by segments).

	Global (%)	Female (%)	Male (%)	χ^2	V	12-13 years (%)	14-15 years (%)	16-17 years (%)	χ^2	V
Has anyone ever invited you to drink alcohol or use other drugs in an attempt to flirt with you?	22.8	28.6	16.8	138.88***	.14	8.6	20.7	33.9	424.23***	.23
Has anyone ever given you alcohol or other drugs to try to take sexual advantage of you?	4.2	5.7	2.5	43.62***	.079	1.2	3.9	6.4	79.91***	.10
Have you ever woken up disoriented and with the suspicion that you might have been drugged?	2.0	2.4	1.5	1.06	---	1.9	2.2	2.2	0.10	---
Has anyone ever taken sexual advantage of you after giving you alcohol or other drugs?	1.7	1.9	1.2	5.18*	.028	0.2	1.6	2.6	50.36***	.07
<i>If yes,</i>										
Did you go to emergency or any medical service?	19.7	11.8	30.6	5.61*	.23	25.0	22.0	17.6	0.52	---
Did you report it?	11.4	5.3	18.4	4.17*	.21	12.5	16.0	8.1	1.83	---

Note. (*) $p < .05$; (**) $p < .01$; (***) $p < .001$.

Regarding substance use in the previous year, Table 2 shows that DFSA “victims” ($n = 119$) presented percentages of use 3-4 times higher than “non-victims” ($n = 7,062$) with the differences in all cases being especially noticeable in the case of drunkenness (66.4% vs. 18%), smoking (58.8% vs. 16.2%) or the use of purple drank (28.6% vs. 4.5%). The rates of problematic use detected by AUDIT, CAST or CRAFFT screening were also 3-4 times higher. In terms of profile, it could be said that almost 70% of DFSA victims presented a pattern of problematic drinking, and 1 in 4

of problematic cannabis use (28.4%). Furthermore, 80% reported having taken part in binge drinking sessions in the last year and 2 out of 3 admitted to having got drunk. Smoking hookah tobacco was reported by 57.6%, with 35.3% using cannabis, 70.6% alcohol with energy drinks and 28.6% purple drank.

At the same time, however, differences were not found only in the sociodemographic profile and in the patterns of alcohol and other substance use, since significant differences could also be seen regarding Internet and

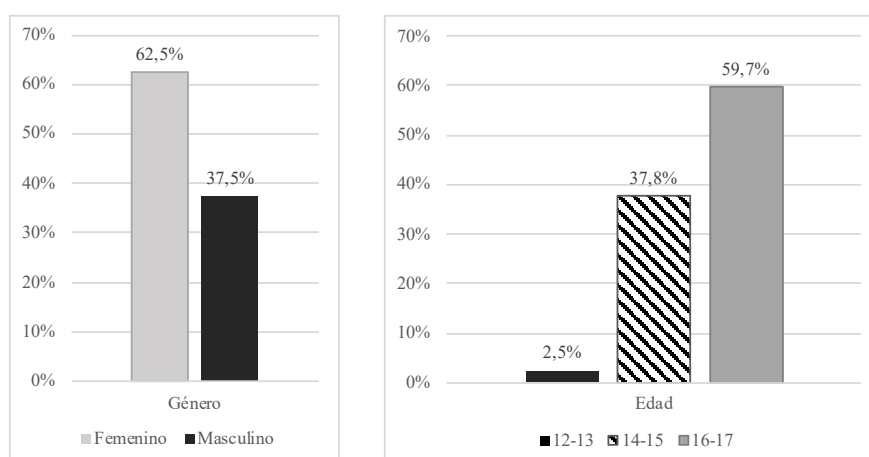


Figure 1. Sociodemographic victim profile.

Table 2. Comparison of substance use in the previous year between DFSA victims (n = 119) and non-victims (n = 7062).

	Non-victims (%)	Victims (%)	χ^2	V
Alcohol	37	78	82.73***	.11
Drunkenness	18	66.4	175.72***	.16
Binge drinking	30	81	137.11***	.14
Tobacco	16.2	58.8	148.96***	.15
Cannabis	9.2	37.8	105.95***	.12
Tobacco hookah	17.3	57.6	125.01***	.13
Cannabis hookah	7.2	35.3	125.73***	.13
Purple drank	4.5	28.6	142.07***	.14
Alcohol with energy drinks	30.6	70.6	85.42***	.11
AUDIT +	22	69.7	149.20***	.15
CAST +	4.9	28.4	100.41**	.13
CRAFFT +	18.7	64.7	155.01***	.15

Note. (***) $p < .001$.

Table 3. Comparison of technological habits between DFSA victims (n = 119) and non-victims (n = 7062).

	Non-victims (%)	Victims (%)	χ^2	V
<i>Have you ever...</i>				
visited websites with erotic or pornographic content?	31	58.3	31.43***	.07
contacted strangers through the Internet, chats, social networks or video games?	28.3	48.3	21.74***	.06
accepted someone you didn't know at all on social media?	41.6	66.4	28.41***	.06
met in person with people you got to know exclusively through the Internet, chat rooms, social networks or video games?	12.3	37	62.39***	.09
been pressured by someone, or have they tried to blackmail you into sending them erotic or sexual photos or videos of you?	5.7	26.9	88.69***	.11
been blackmailed by someone who published, shared or forwarded photos or videos of you/or erotic or sexual content?	0.9	10.9	106.31***	.13
been sent photos or videos by your contacts of themselves/or of erotic or sexual content?	15.9	54.6	124.91***	.133
sent photos or videos of yourself/or erotic or sexual content?	6.3	28.6	88.71***	.11
EUPI-a +	26.2	46.2	23.04***	.06

Note. (***) $p < .001$.

social network use. Table 3 shows how “victims” reported significantly higher percentages of online risk behaviours and a PIU rate almost double that of “non-victims” (46.2% vs. 26.2 %). The percentage of “victims” acknowledging that they physically met people they initially got to know exclusively through the Internet (37%) is particularly striking, being three times higher than in the case of “non-victims” (12.3%). The same can be said for sending personal photos or videos and erotic or sexual content (active sexting), which was four times higher (28.6% vs. 6.3%), as well as passive sexting (three times higher: 54.6%

vs. 15.9%), or blackmail suffered by sharing or publishing personal photos or videos of an erotic or sexual nature (up to 12 times higher: 10.9% vs. 0.9%). The victim subsample (n = 119) was also analysed for possible gender differences, with significant differences found only with regard to binge drinking ($\chi^2 = 3.86$; $p < .05$) where a higher percentage of females was confirmed (88.2% vs. 71.4%).

Finally, although the observed effect sizes (Cramer’s V values) were indeed small, a binary logistic regression analysis was performed for exploratory purposes. Item 4 (“Has anyone ever taken sexual advantage of you after giving you

alcohol or other drugs?”) was used as the dependent variable, while the different variables referring to both substance use and Internet and social network use, along with gender and age were taken as independent variables. Although the model was statistically significant ($\chi^2 = 200.64$; $p < .001$), the results obtained showed little explanatory power ($R^2_{\text{Nagelkerke}} = .23$), with the variable presenting a greater weight being drunkenness ($\beta = 1.25$), binge drinking ($\beta = 1.18$) and the fact of having previously been the object of Internet blackmail ($\beta = 1.13$).

Discussion

The present study was intended to provide evidence that would help not only to quantify the problem of drug-facilitated sexual assault, but also to better understand it and guide efforts at prevention. The results obtained allow us to draw five major conclusions. First of all, almost two out of every hundred minors in the autonomous community of Galicia may have been victims of DFSA, which means that we are talking about more than 2,000 cases. Secondly, although it is a type of crime mostly suffered by adolescents aged 16-17 years, it is possible to detect cases in individuals as young as 12-13 years. Thirdly, although in two out of three cases the victims identified as female, it is not limited exclusively to them. This represents a novelty compared to earlier studies, for example the research by Navarro-Escayola and Vega-Vega (2013) or Panyella-Cabó et al. (2019), which found a female-male ratio of 20 to 1. Fourthly, it is important to highlight the fact that only one in ten cases was reported and eight out of ten victims did not even go to a medical centre. Finally, it was possible to verify that DFSA victims presented a differential profile as far as substance and Internet use are concerned. The fact that the victims showed three-to-four times higher rates of alcohol and cannabis use or binge drinking, as well as “positives” on the AUDIT, CAST or CRAFFT screenings will revive the existing controversy surrounding chemical submission versus chemical vulnerability. The fact that the victims also presented a pattern of vulnerability regarding Internet and social network use, with three times as many online risk practices, means that in preventive terms we must go one step further when addressing the problem.

Regarding the possible implications of these results, several lines of discussion may be established. One of them is the need for the public administration itself to dispose of regular information systems to facilitate good assessment and monitoring of the problem. Official sources such as police and judiciary statistics may be underestimating the problem, which justifies the preparation of ad hoc victimisation surveys, equipped with the required methodology and rigor. Meanwhile, the fact that only two out of ten victims went to a medical centre and only one out of ten reported the assault suggests the need to make a greater effort at the level

of social awareness and a more in-depth analysis to identify possible underlying barriers or resistance. Fear, feelings of shame or guilt, lack of social support or even the fact that in some of these situations it can be shown that the victim had voluntarily ingested large amounts of alcohol or substances can act as a barrier to reporting the facts.

Another issue that deserves special consideration is that female DFSA victims reported the assault between three and four times less than male victims, despite having a higher victimisation rate. This could be due to the normalisation of sexual harassment and “low intensity” abuse that women appear to have historically assumed in nightlife contexts, which would make them more tolerant of this type of behaviour (Altell et al., 2015). These and other issues justify the need to approach the problem from a gender perspective, the analysis of which should also incorporate sexual orientation, which could help explain the high rate of victimisation found among males. In this regard, some studies warn that young people belonging to the LGBTBIQ+ community would be at greater risk of victimisation than cisgender heterosexuals (Coulter et al., 2017; Coulter & Rankin, 2020; Tilley, Kolodetsky, Cottrell & Tilton, 2020).

Regarding the fact that cases of DFSA have been reported in the 12-13 age group, while not disturbing, it would be unsurprising if one takes into account the levels of consumption already detected at those ages (García-Couceiro et al., 2020; Rial et al., 2019). As previous studies have noted, adolescents who start consuming earlier are more likely to be involved in potentially dangerous practices (Rial, Golpe, Barreiro, Gómez & Isorna, 2020). For this reason, substance use onset age must be studied as a possible risk factor in DFSA victimisation. The fact that the victims show a repertoire of problematic consumption coincides with what the literature indicates (Caamano-Isorna et al., 2021; Dir, Riley, Cyders & Smith, 2018; Gilmore, Lewis & George, 2015), but rather than criminalising the victims, it must be taken into account when defining a vulnerability profile and, consequently, when designing prevention policies. It would be important to analyse DFSA from a public health perspective since it seems rather difficult to make progress in solving the problem without progress in the prevention of alcohol and other drug use in adolescence. In this regard, experts insist on the relevance of adopting early detection and intervention models, such as the SBIRT model (*Screening, Brief Intervention and Referral to Treatment*) (García-Couceiro et al., 2021), which involves a proactive attitude within a comprehensive and community-based public health system when addressing the problem.

Meanwhile, the fact that the differences between “victims” and “non-victims” also extended to other areas, such as ways of interacting through the Internet and with the Internet, is of great interest. The results show the existence of a particular interaction pattern featuring more

online risk behaviours, a higher rate of PIU, and greater online exposure of DFSA victims, especially in everything related to the sexual area (higher rates of active and passive sexting, use of pornography, contact with strangers, pressure, blackmail and attempted sextortion). This association, already noted in studies by Conley et al. (2017), Dir et al. (2018) or Yépez-Tito, Ferragut & Blanca (2021), does not seem in any way spurious or random, so it must be taken into account at the level of prevention. Consequently, in addition to the public health point of view, an educational perspective must be incorporated into prevention which includes both the affective-sexual level as well as responsible Internet use.

Finally, some limitations of this study should be noted. Despite the relatively large sample (over 7,000 minors), the fact that a probabilistic sampling strategy was not used prevents the results being interpreted from an epidemiological perspective; therefore, the figures offered should not be considered in terms of prevalence, but as estimates. Likewise, the study's methodological design means that the relationships found between the variables cannot be interpreted in terms of causality. Only a longitudinal design would allow a causal relationship to be established and antecedents or prognostic factors to be distinguished from consequent factors. On the other hand, a more in-depth reflection reveals the need to incorporate certain variables in future research which would allow a richer analysis and understanding of the problem; these would range from variables such as socioeconomic level, sexual orientation, substance use onset age, or the age of the first sexual relationships, to variables of a clinical nature, such as the presence of anxiety-depressive disorders or post-traumatic stress disorder due to previous experiences of victimisation, as well as of a psychological nature (e.g. personality traits, self-esteem or assertiveness). It should also not be ignored that this study focuses on the profile of the victim and does not address that of the aggressor, which constitutes another limitation. Finally, it should be noted that all variables were self-reported, so responses may depend on the subjectivity of the adolescents themselves, who may have under- or overestimated their behaviours. However, as different experts have pointed out, self-report measures have proven to be equally reliable as other methods when assessing levels of substance use as well as different associated risk behaviours (Babor, Kranzler & Lauerman, 1989; Winters, Stinchfield, Henly & Schwartz, 1990).

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Conflict of interests

The authors of this article declare no conflict of interest.

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