Behavioral Psychology / Psicología Conductual, Vol. 31, Nº 3, 2023, pp. 563-578
https://doi.org/10.51668/bp.8323307n

ELECTRONIC VICTIMIZATION EXPERIENCES IN SPANISH ADOLESCENTS FROM THE GENERAL POPULATION AND RISK CONTEXTS

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Abstract

The present work aims to show the differences in the occurrence of electronic victimization in the last year, between four different samples of Spanish adolescents. Likewise, it seeks to study whether there is a relationship between having suffered electronic victimization and other forms of victimization and whether cyber-victims show differences according to sex and age group. 1,105 adolescents from secondary education centers, 149 from child and adolescent mental health centers, 129 from the protection system, and 101 from the juvenile justice system were interviewed. Victimization experiences were assessed using the Juvenile Victimization Questionnaire (Finkelhor et al., 2005). Electronic victimization ranged from 8.9% in the school sample, 16.8% in mental health, 25.7% in the juvenile justice system and 27.1% in the protection system. A positive relationship was found between electronic victimization and other forms of victimization in educational, protection and justice centers. Besides, girls were more likely to experience electronic victimization in the mental health and school samples. In conclusion, electronic victimization is distributed differentially according to the adolescents' provenance group.

KEY WORDS: *electronic victimization, adolescents, Spain, general population, risk contexts.*

Resumen

El presente trabajo pretende mostrar las diferencias de ocurrencia de victimización electrónica en el último año, entre cuatro muestras diferentes de adolescentes españoles. Asimismo, busca estudiar si existe relación entre haber sufrido victimización electrónica y otras formas de victimización y si las cibervíctimas muestran diferencias según sexo y grupo de edad. Se entrevistaron 1.105 adolescentes de educación secundaria, 149 de salud mental infantojuvenil, 129 del sistema de protección, y 101 del sistema de justicia juvenil. Las experiencias de victimización se evaluaron mediante el "Cuestionario de victimización juvenil"

The study was partially funded through a grant for the recruitment of novice research personnel (FI, 2020), with the support of the Secretary of Universities and Research of the Government of Catalonia and the European Social Fund.

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(Finkelhor *et al*., 2005). La victimización electrónica osciló entre 8,9% en la muestra escolar, 16,8% en salud mental, 25,7% en el sistema de justicia juvenil y 27,1% en el de protección. Se encontró una relación positiva entre victimización electrónica y otras formas de victimización en centros educativos, de protección y de justicia. Por otra parte, las chicas tuvieron mayor probabilidad de sufrir victimización electrónica en las muestras de salud mental y centros escolares. En conclusión, la victimización electrónica se distribuye de manera diferencial según la procedencia de los adolescentes.
PALABRAS CLAVE: *victimización electrónica, adolescentes, España, población general, contextos de riesgo.*

Introduction

The development of information and communication technologies (ICT) offers adolescents new and exciting opportunities to connect and explore the world. However, despite their numerous advantages, it is important to caution against the potential risks and dangers associated with the inappropriate use of these resources (Livingstone, 2006; Livingstone et al., 2011). ICT can easily be used to harass, bully, and/or commit crimes against minors in various forms, including sexual solicitation or approaches, unwanted exposure to sexual or violent material, and threats or aggression with the intent to harm another. Receiving these attacks is what is known in the scientific literature as cyber victimization or electronic victimization (Mitchell et al., 2003; Tynes et al., 2010).

Statistics show that cyber victimization is becoming a widespread, increasing issue worldwide, especially among the child and adolescent population (Jones et al., 2012; Sorrentino et al., 2019). The fact that over 90% of adolescents in Western countries are online and spend 30% of their waking time connected makes them more vulnerable to cyber threats (Lenhart et al., 2010; Rideout et al., 2010).

Internationally, Aboujaoude's review (2015) found that the prevalence of cyberbullying among children and adolescents ranged from 20% to 40%, reaching up to 50% in Garaigordobil's review (2011). In Spain, the results are alarming. Considering a broad range of electronic victimization experiences, it was found that over 50% of adolescents have been cyber victims (Montiel et al., 2016).

However, epidemiological data primarily come from studies conducted with samples of minors from the general population, which provide an overall view of the frequency of electronic victimization. There are limited studies that have considered the characteristics of this issue among minors in at-risk groups.

Regarding the population of minors with mental health problems, several studies agree that these young individuals are at a higher risk of electronic victimization (Cuevas et al., 2009; Guo, 2016; Haahr-Pedersen et al., 2020; Mitchell, Ybarra et al., 2007). Regarding adolescents involved in the juvenile justice system or those connected to the child protection system, no published studies have been found that include the assessment of this specific form of victimization, except for descriptive works by Pereda (2015a) and Segura et al. (2015) in Spain. However, it is evident that both juvenile justice-involved minors and those in the child protection

system are more vulnerable to experiencing violence (Cyr et al., 2012; Ford et al., 2013).

The age and gender of victims and their experience of other forms of victimization, stand out among the various risk factors associated with electronic victimization.

Regarding age, both Kowalski and Limber (2007) and Ybarra et al. (2006) found positive associations between age and the frequency of electronic victimization among American students aged 10 to 15. In other words, older individuals had a higher prevalence of electronic victimization. In contrast, Slonje and Smith (2008) discovered an inverse relationship between age and electronic victimization in their sample of Swedish students aged 12 to 20, where younger participants experienced more cyberbullying than older ones. Similar inverse trends have been reported in other studies (Balakrishnan, 2015; Dehue et al., 2008). In contrast, Williams and Guerra (2007) found that age is curvilinearly related to the frequency of electronic victimization, which peaks around 12 to 14 years of age. Other studies demonstrate a lack of association between these variables (Juvonen and Gross, 2008; Katzer et al., 2009; Wolak et al., 2007). In summary, the scientific literature on the effect of age on electronic victimization reveals mixed results.

As for gender, the differences found in electronic victimization are not consistent either. Some research reveals that both girls and boys have the same vulnerability to this type of victimization (Balakrishnan, 2015; Hinduja and Patchin, 2008; Li, 2010). However, other studies find that gender is a significant predictor of electronic victimization (Guo, 2016; Mitchell et al., 2014; Montiel et al., 2016; Navarro et al., 2013; Wolak et al., 2008), with girls being disproportionately represented among the victims, especially when victimization is of a sexual nature (Montiel et al., 2011).

The relationship between online victimization through ICT and offline victimization without the use of ICT, has also been widely documented in the scientific literature (Guo, 2016; Mitchell et al., 2011; Tokunaga, 2010). For example, Ybarra et al. (2007) reported that 36% of children in their nationally representative sample in the USA experienced offline and online bullying simultaneously. In the same country, Juvonen and Gross (2008) found that up to 85% of children and adolescents who were victims of electronic harassment were also victims of bullying at school. In Olweus's review (2013), this percentage reached 88%. Various studies suggest that minors with histories of physical or sexual abuse may be more prone to receiving aggressive online sexual solicitations (Mitchell et al., 2001; Noll et al., 2013). Furthermore, victimization experienced online and offline can lead to psychopathological symptoms, which, in turn, increase vulnerability and the risk of experiencing additional victimization in the future. Thus, victimization becomes a habitual occurrence rather than a one-time event in the lives of these young individuals (Finkelhor et al., 2009; Montiel and Agustina, 2019; Quesada et al., 2018).

The purpose of this study was to explore experiences of electronic victimization over the past year in four samples of Spanish minors, drawn from the general population (secondary education centers) and at-risk contexts (child and adolescent mental health centers, residential centers in the child protection system, and juvenile

justice centers). Specifically, the following objectives were proposed: (1) to analyze differences in the prevalence of electronic victimization between the sample of schoolchildren and those from at-risk contexts; (2) to determine whether there are differences in the prevalence of electronic victimization based on gender and age in the four samples; (3) to explore whether offline victimization is related to electronic victimization in each of the samples.

Taking into account the aforementioned objectives, it was hypothesized that (1) the prevalence of electronic victimization will be higher in groups of minors from at-risk contexts than in the sample of schoolchildren, as has been found in previous national descriptive studies (Pereda et al., 2015a; Pereda et al., 2015b; Segura et al., 2015); (2) girls will exhibit a higher prevalence of electronic victimization in the four samples (Guo, 2016; Mitchell et al., 2014; Montiel et al., 2016; Navarro et al., 2013), but age will not be related to this type of victimization (Juvonen and Gross, 2008; Katzer et al., 2009; Wolak et al., 2007); (3) a positive relationship will be found between having experienced electronic victimization and other forms of offline victimization in the four samples (Guo, 2016; Mitchell et al., 2011; Montiel and Agustina, 2019; Olweus, 2013).

Method

Participants

1) Education centers. A convenience sample was drawn from seven schools in Catalonia, selected with the aim of covering strata based on the school's socioeconomic level (i.e., determined by its location and the professional and education level of families, with data provided by the schools). The sample allocation in each stratum was proportional to the number of enrolled students within the age range of interest. Different class groups within each education center were selected randomly. To be included in the study, participants had to be between 12 and 17 years old. The total sample consisted of 1,105 adolescents, including 590 boys and 515 girls, with a mean age of *M*= 14.52 years (*SD*= 1.76).

2) Mental health centers. Participants were selected from 14 child and adolescent mental health centers in Catalonia, from among those in the diagnostic evaluation phase. The centers were selected from the 34 established in the province of Barcelona using convenience sampling. The sample consisted of 149 adolescents (53 boys and 96 girls) aged 12 to 17 years (M= 14.28; SD= 1.45). Most participants were of Spanish nationality (79.9%) and 18.8% were born in other countries. The most common diagnoses were adjustment disorders (21.5%), anxiety disorders (19.5%), and attention deficit and disruptive behavior disorders (17.4%), followed by mood disorders (7.4%) and eating disorders (6.0%).

3) Protection centers. The sample consisted of 129 adolescents (64 boys and 65 girls) aged 12 to 17 years (*M*= 14.59, *SD*= 1.62), served in 18 residential (78.3%) and foster care (21.7%) centers in the Catalan child protection system. The centers were selected using convenience sampling. The sample size represents 9.1% of young people aged 12 to 17 living in these types of centers (Direcció General d'Atenció a la Infància i l'Adolescència, 2012). Most participants were in situations

of protection due to neglect (72.9%), physical abuse (11.6%), sexual abuse (3.9%), exposure to family violence (1.5%), labor exploitation (1.5%), prenatal maltreatment (0.8%), corruption (0.8%), and other risk situations (13.2%), while 3.9% had an unknown reason for protection. The minors had been under the care of the child protection system for an average of over 3 years (*M*= 3.58, *SD*= 3.29), ranging from less than 1 month to 13 years. A total of 67.4% of the adolescents were born in Spain, and the rest were born abroad (32.7%). Most of them maintained contact with their parents (89.9%). There was an association between gender and age, with a higher number of boys in the younger group (12 to 14 years) and girls in the older group (15 to 17 years) (χ^2= 4.843, *df*= 1, *p*= 0.028, Cramer's V= 0.194).

4) Justice centers. Participants formed a convenience sample of 101 adolescents (82 boys and 19 girls) aged 14 to 17 years (*M*= 16.08, *SD*= 0.99) recruited from three closed juvenile justice centers (77.2%) and five open community-based teams (22.8%) in Catalonia. The sample size corresponds to 14.4% of young people aged 14 to 17 under these measures (Direcció General d'Execució Penal a la Comunitat i Justícia Juvenil, 2013). A total of 54.5% of the sample was of foreign origin, while 45.5% were born in Spain. At least 92.1% of the sample had committed a violent offense. Participants had been in contact with the juvenile justice system for an average of 1.3 years (*SD*= 0.94). About a third of the sample (29.7%) had also been served by the child protection system.

Instruments

a) *Juvenile Victimization Questionnaire* (JVQ; autores originales, año), Spanish adapted version by Pereda et al. (2018). The questionnaire consists of 36 forms of child and adolescent victimization, grouped into six modules related to common crimes (9 items), victimization by caregivers (4 items), victimization by peers and siblings (6 items), sexual victimization (6 items), indirect victimization (9 items) and electronic victimization (2 items). The items have a dichotomous response format (Yes/No). This questionnaire has been used in previous studies in Spain (Pereda et al., 2014) and in other European countries, such as the United Kingdom (Radford et al., 2013) and Finland (Ellonen and Salmi, 2011). Electronic victimization in the JVQ is assessed through two questions that refer to the presence, over the past year, of the two types that make up this type of victimization: cyberbullying (item INT1) and online sexual harassment (item INT2). A young person was considered to have experienced electronic victimization when they answered affirmatively at least one of these two items. The rest of the items in the JVQ allowed participants to be classified as having experienced offline victimization or not. The JVQ has demonstrated good psychometric properties in its Spanish adaptation (Pereda et al., 2018) and has been used in both youth from the general population and youth from clinical population (Pereda et al., 2015b), the protection system (Segura et al., 2015), and the juvenile justice system (Pereda et al., 2015a).
b) *Ad hoc* sociodemographic questionnaire. Information on sociodemographic variables of the young person (age, gender and country of origin) and their

family (family structure, parents' education and occupation) was obtained through a customized questionnaire. Socioeconomic status (SES) was calculated using an adaptation of the Hollingshead index (1975). Furthermore, information was obtained about why the minor was in a situation of protection for the sample under the child protection system, and about the type of offense and judicial measures imposed on the adolescent for the justice sample, based on their respective records.

Procedure

The study was conducted as an observational, cross-sectional, multicenter study. The study adhered to the basic ethical principles of the Declaration of Helsinki (World Medical Association, 2013) and the Deontological Code of the Official College of Psychologists in Catalonia (Diari Oficial de la Generalitat de Catalunya, 2015). It was approved by the Ethics Committee of the University of Barcelona (IRB00003099). After obtaining permission from the participating centers, the parents or legal guardians of the minors were informed about the study, its objectives, and the voluntary nature of their participation. They signed an informed consent form, and the participants provided verbal consent. It was ensured that refusing to participate would not entail any prejudice. Between 3% (sample of education centers) and 26.8% (juvenile justice system sample) declined to participate in the study, or participation was not possible due to language problems (being foreigners) or the presence of acute symptoms, among other reasons. The instruments were administered between 2009 and 2013 by researchers from the team who were trained in the field of study and in data collection related to violence against minors (Pereda et al., 2019).

Data analysis

For each of the samples, the prevalence of electronic victimization during the 12 months prior to the survey was estimated in terms of percentages, both overall and by gender and age group (i.e., 12-14 and 15-17 years). Likewise, to assess the extent to which each risk sample (i.e., mental health centers, protection centers and justice centers) had a higher prevalence of victimization compared to the school sample, odds ratios (*OR*) adjusted for gender and age were calculated using binary logistic regression analysis, where the sample from education centers was defined as the reference category. To compare the prevalence between genders and age groups in each sample, *OR*s were obtained through binary logistic regression, accompanied by the corresponding confidence interval (95% CI). Finally, experiences of offline victimization (i.e., common crimes, caregiver victimization, peer and sibling victimization, sexual victimization and indirect victimization) were introduced into the model to explore the contribution of these types of victimization in explaining electronic victimization. The analyses were conducted using the statistical software SPSS v. 26.

Results

In consideration of the first objective, the results presented in Table 1 confirm that the origin of the sample acted as an explanatory variable for electronic victimization. Specifically, adolescents from mental health centers had a higher probability of experiencing this victimization (*OR*= 1.88; 95% CI [1.16-3.05]) than adolescents from the school sample. The samples from protection centers (*OR*= 3.80; 95% CI [2.44-5.92]) and justice centers (*OR*= 4.24; 95% CI [2.50-7.19]) had more than double the probability of having these experiences than the school sample.

Table 1
Comparison of electronic victimization over the past year according to the sample origin

	Electronic victimization *OR* (95% CI)
Education centers (*n*= 1105) *vs*. mental health centers (*n*= 149)	1.88 (1.16-3.05)
Education centers (*n*= 1105) *vs*. protection centers (*n*= 129)	3.80 (2.44-5.92)
Education centers (*n*= 1105) *vs*. justice centers (*n*= 101)	4.24 (2.50-7.19)

Notes: R2= 0.042 (Cox and Snell); 0.080 (Nagelkerke). Hosmer and Lemeshow Test $\chi 2$= 1.404; *df*= 5; *p*= .924

Consistent with the previous results, the descriptive data in Table 2 reflect that the sample from the protection system (27.1%) and, subsequently, the juvenile justice sample (25.7%) had the highest percentage of electronic victimization. In contrast, the sample from education centers had the lowest percentage of victimization (8.9%). In more detail, the table shows how the prevalence of electronic victimization is distributed within each sample based on the gender and age group of the adolescents. Additionally, it indicates in each sample the average age at which adolescents experienced their first episode of electronic victimization, with those in the clinical sample having these experiences at an earlier age ($\bar{x}$= 13.24), although the differences are not significant.

Regarding the second objective and considering the entire set of participants without grouping them by sample origin, the data indicate that gender significantly contributed to electronic victimization (*OR*= 1.88; 95% CI [1.35-2.62]), with girls being more likely than boys to experience these incidents. However, no differences were found based on the age group of adolescents (*OR*= 1.07; 95% CI [0.77-1.49]).

Furthermore, when gender differences were analyzed in each of the samples, the data in Table 2 indicate that girls from education centers were more likely to experience electronic victimization than boys (*OR*= 1.66; 95% CI [1.05-2.61]). In the sample from mental health centers, gender also contributed to electronic victimization (*OR*= 3.35; 95% CI [1.01-11.15]), with girls showing a higher likelihood of experiencing this victimization. Gender did not contribute to explaining electronic victimization in the samples from protection centers or the justice system.

Regarding age, as shown in Table 2, this variable did not significantly contribute to explaining the presence of electronic victimization in any of the four samples.

Table 2

Electronic victimization in the last year grouped by gender and age group, and mean age at which the first victimization episode occurred

Samples	Total *n* (%)	Gender			Age			
		Girls *n* (%)	Boys *n* (%)	*OR* (95% CI)	12-14 years *n* (%)	15-17 years *n* (%)	*OR* (95% CI)	First episode *M* (*SD*)
Education centers (*n*= 1105)	98 (8.9)	59 (60.2)	39 (39.8)	1.66 (1.05-2.61)	44 (44.9)	54 (55.1)	1.22 (0.78-1.90)	13.44 (1.93)
Mental health centers (*n*= 149)	25 (16.8)	21 (84.0)	4 (16.0)	3.35 (1.01-11.15)	15 (60.0)	10 (40.0)	0.74 (0.28-1.94)	13.24 (1.40)
Protection centers (*n*= 129)	35 (27.1)	22 (62.9)	13 (37.1)	1.29 (0.50-3.36)	16 (45.7)	19 (54.3)	0.90 (0.37-2.14)	13.54 (1.80)
Justice centers (*n*= 101)	26 (25.7)	5 (19.2)	21 (80.8)	0.40 (0.09-1.81)	5 (19.2)	21 (80.8)	0.16 (0.03-0.79)	14.25 (1.56)

As for the third objective, Table 3 reveals that, for the sample from education centers, all types of offline victimization significantly contributed to explaining electronic victimization.

For the sample from mental health centers, it was noted that experiencing offline victimization did not affect the probability of experiencing electronic victimization. In the sample from protection centers, only the experience of caregiver victimization significantly contributed to explaining electronic victimization, as reflected in Table 2, *OR*= 4.50; 95% CI [1.72-11.76]). Finally, for cases from justice centers, it is observed that both experiencing caregiver victimization (*OR*= 5.11; 95% CI [1.58-16.49]) and sexual victimization (*OR*= 6.66; 95% CI [1.07-41.55]) significantly explained experiences of electronic victimization.

Table 3
Offline victimization forms that contribute to explaining electronic victimization in each of the four samples

Samples / Offline victimización	Electronic victimization *OR* (95% CI)	R^2 (Cox y Snell) (Nagelkerke)	Hosmer and Lemeshow Test
Education centers			
Victimization by common crimes	1.88 (1.15-3.08)	0.074 0.164	χ^2= 1.525, *gl*= 8, *p*= .992
Caregiver victimization	1.91 (1.18-3.09)		
Peer and sibling victimization	1.85 (1.16-2.95)		
Sexual victimization	2.26 (1.17-4.37)		
Indirect victimization	2.32 (1.47-3.65)		
Mental health centers			
Victimization by common crimes	0.73 (0.25-2.15)	0.119 0.200	χ^2= 4.060, *gl*= 8, *p*= .852
Caregiver victimization	2.24 (0.83-6.03)		
Peer and sibling victimization	2.01 (0.77-5.25)		
Sexual victimization	1.71 (0.41-7.09)		
Indirect victimization	3.07 (0.99-9.47)		
Protection centers			
Victimization by common crimes	0.77 (0.27-2.16)	0.151 0.220	χ^2= 6.366, *gl*= 7, *p*= .498
Caregiver victimization	4.50 (1.72-11.76)		
Peer and sibling victimization	2.30 (0.92-5.74)		
Sexual victimization	0.63 (0.17-2.34)		
Indirect victimization	2.07 (0.80-5.38)		
Justice centers			
Victimization by common crimes	1.27 (0.32-5.13)	0.191 0.281	χ^2= 1.383, *gl*= 6, *p*= .967
Caregiver victimization	5.11 (1.58-16.49)		
Peer and sibling victimization	1.07 (0.32-3.54)		
Sexual victimization	6.66 (1.07-41.55)		
Indirect victimization	2.64 (0.60-11.64)		

Discussion

According to the results obtained, electronic victimization in Spain affects 8.9% of adolescents in education centers. This percentage is lower than that found in

previous national studies that also used the JVQ, such as 27.5% in Játiva and Cerezo (2014) and between 21.1% and 35.9% in Soler et al. (2015). This difference could be due to the previous studies using different sampling methods. In the case of Játiva and Cerezo (2014), the sample consisted of adolescents with low academic performance, so their results would not be generalizable or comparable to those presented in this study.

Internationally, both the study by Jackson-Hollis et al. (2017) in the UK and Mitchell et al. (2007) in the United States, with adolescents from education centers using the same instrument, obtained higher prevalences of electronic victimization, 26% and 23%, respectively. However, another study by Mitchell et al. (2011) found that 6% of American youth had experienced electronic victimization in the past year, a result that is consistent with the findings presented in this study.

It is important to note that, in line with our first hypothesis, the prevalence of electronic victimization is higher in young people who belong to at-risk groups, especially in the child protection and juvenile justice systems, where one in four minors experience it, although it has been sparsely studied in these contexts and mainly at the international level (Cyr et al., 2012; Ford et al., 2013).

Regarding the second hypothesis, electronic victimization seems to be related to gender in young people from education centers and those receiving care in mental health centers, with girls suffering this type of violence the most, in line with previous international and national research (Guo, 2016; Montiel et al., 2016; Navarro et al., 2013). However, gender did not contribute to explaining electronic victimization in the samples from protection centers or the justice system. Therefore, the hypothesis on gender differences is only confirmed for the school and mental health samples. One possible explanation for this phenomenon is that the risk of being victims of electronic harassment in these two samples is so high that it affects both genders equally, which links this risk to specific characteristics of the sample origin.

Regarding age, the hypothesis was confirmed and the results were consistent with previous studies (Juvonen and Gross, 2008; Katzer et al., 2009; Wolak et al., 2007). They showed that there was no association between this variable and electronic victimization in any of the four samples. Notably, adolescents in the clinical sample experienced their first episode of electronic victimization at an earlier age.

The third hypothesis was partially fulfilled, as a positive relationship was found between experiencing electronic victimization and other forms of victimization in the samples from education centers, protection centers and the justice system. In other words, experiencing some forms of offline victimization significantly contributed to experiencing online victimization in all samples except in the sample from mental health centers. This relationship between the two types of victimization had been previously established in adolescents from the general population (Guo, 2016; Noll et al., 2013; Tokunaga, 2010), which confirms the risk of polyvictimization among minors who have experienced one type of victimization (Cyr et al., 2012; Ellonen and Salmi, 2011).

However, the fact that this association does not apply to adolescents in the clinical sample could be due to the existence of other variables that affect electronic

victimization to a greater extent and that contaminate the contribution of offline victimizations. One example is the psychopathological symptoms that these adolescents may present (Gámez-Guadix et al., 2013; Turner et al., 2010), which would be the factor that most differentiates them from young people in the other samples.

Finally, it is necessary to point out that, for some young people, there may be no real differences between online and offline victimization. For others, the internet may have introduced greater severity, frequency and/or new dynamics, which require new responses or interventions (Mitchell, Finkelhor et al., 2007). Therefore, any form of electronic victimization should be accompanied by a thorough assessment of possible victimizations of other types, both online and offline, as the experience of multiple forms of victimization is not only the norm among cyber victims but is also associated with a higher level of severity in the experience (Mitchell et al., 2011; Montiel, 2015).

This study is not without limitations. First, it should be noted that establishing the prevalence of electronic victimization, both nationally and internationally, remains challenging, largely due to the existence of multiple instruments that assess specific forms of victimization, especially cyberbullying (Chun et al., 2020). The absence of a standardized reference instrument complicates the validity and reliability of measurement methods for the construct and, consequently, the results (Hutson, 2016; Peter and Petermann, 2018). However, this study, by using the electronic victimization items from the JVQ, allows for comparisons between groups within the same country (Játiva and Cerezo, 2014; Soler et al., 2015), and with other cultural contexts that have used the same instrument (Jackson-Hollis et al., 2017; Mitchell et al., 2011; Pinto-Cortez et al., 2020). Furthermore, this instrument has been validated in Spain, and has shown good psychometric properties (Pereda et al., 2018). Another potential limitation is that electronic victimization was assessed using only two items, which, despite evidence supporting their use (Finkelhor et al., 2005; Wolak et al., 2007), may have resulted in an insufficient recording of such experiences. Additionally, as this research involved samples from a specific geographical area, the generalizability of the results is limited. Moreover, the small size of some samples leads to wide confidence intervals. Therefore, caution must be exercised when the findings are interpreted. Finally, future research should explore how other sample characteristics, beyond gender and age, relate to electronic victimization. It should be assessed whether the risk of experiencing this type of violence is solely due to the sample origin or if there are other variables that may explain it.

To conclude, given that electronic victimization affects a significant number of adolescents, especially those in at-risk contexts, it is necessary and urgent to implement widespread public measures for prevention, detection and intervention in these experiences among the child and adolescent population. Specifically, young people who identify with offline victimizations, delinquency, adversity and mental health problems are the most vulnerable to experiencing electronic victimization. Therefore, they require earlier detection and intervention on this issue, and education about the dangers of the internet so that they can protect themselves in the future. Conversely, adolescents who report electronic victimization should be

assessed to detect other risk factors and different victimization experiences. When prevention programs are designed and implemented, we must consider the gender perspective since girls tend to experience electronic victimization more frequently and, consequently, have a greater need for support and resources. Finally, it is crucial to emphasize the importance of conducting national-level research that includes at-risk youth, to understand the actual magnitude of the problem, its specific characteristics and risk factors.

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RECEIVED: OCTOBER 18, 2021
ACCEPTED: JULY 30, 2022