

Unveiling the dynamics of sexual crimes in Colombia based on complaints over a decade

■ **Desvelando la dinámica de los delitos sexuales en Colombia a partir de las denuncias de más de una década**

■ **Revelando a dinâmica de crimes sexuais na Colômbia, com sede em reclamações ao longo de uma década**

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Abstract

The aim of this article was to analyse the dynamics of sexual offense reports in Colombia over the period between 2010 and 2022. For this, a mixed methodology was applied in the following phases: first, the Colombian National Police registry –which included 286 604 sexual crimes reported in the aforementioned period– was analysed. Then, a causal loop diagram of System Dynamics was designed to highlight the role of reporting sexual crimes in the Colombian Penal System. The main findings of this article include that 85.73% of the complaints are mostly associated with women and 68% of the victims are minors or adolescents of both sexes. It must be noted that Colombian legislation divides these crimes into those that are aggravated by violence and those that are not. It was also found that when the victim was a woman, the crimes occurred in a higher proportion with the aggravating factor of violence. It can also be concluded that during the COVID-19 pandemic confinement, there was a decrease in the number of sexual offense reports due to its negative effect on the possibility of adult women reporting crimes. In addition, it was found that it is imperative to direct the criminal policies towards the general positive prevention of sexual crimes, without instrumentalising individuals, and aimed at completing a detailed follow-up of complaints.

Keywords:

Sex crimes, criminal statistics, criminal policy, sexual offender (source: Criminological Thesaurus - United Nations Interregional Crime and Justice Research Institute - UNICRI). Police reporting dynamics (source: authors).

Resumen

El objetivo de este artículo fue analizar la dinámica de las denuncias por delitos sexuales en Colombia en el periodo comprendido entre 2010 y 2022. Para ello, se aplicó una metodología mixta en las siguientes fases: primero, se analizó el registro de la Policía Nacional de Colombia –que incluyó 286 604 delitos sexuales denunciados en el periodo mencionado–. Luego, se diseñó un diagrama de bucle causal de Dinámica de Sistemas para resaltar el papel de la denuncia de delitos sexuales en el Sistema Penal Colombiano. Entre los principales hallazgos de este artículo se destaca que el 85.73% de las denuncias están asociadas mayoritariamente a mujeres y el 68% de las víctimas son menores

de edad o adolescentes de ambos sexos. Es de anotar que la legislación colombiana divide estos delitos en agravados por violencia y no agravados por violencia. También se encontró que cuando la víctima es mujer, los delitos se presentan en mayor proporción con el agravante de violencia. También se puede concluir que durante el encierro pandémico COVID-19, hubo una disminución en el número de denuncias de delitos sexuales debido a su efecto negativo en la posibilidad de que las mujeres adultas denuncien delitos. Además, se constató que es imperativo orientar las políticas criminales hacia la prevención general positiva de los delitos sexuales, sin instrumentalizar a los individuos, y dirigidas a completar un seguimiento detallado de las denuncias.

Palabras clave:

Delitos sexuales, estadísticas criminales, política criminal, delincuente sexual (fuente: Tesouro Criminológico - Instituto Interregional de las Naciones Unidas para la Investigación sobre la Delincuencia y la Justicia - UNICRI). Dinámica de las denuncias policiales (fuente: autores).

Resumo

O objetivo deste artigo foi analisar a dinâmica das denúncias de crimes sexuais na Colômbia no período entre 2010 e 2022. Para isso, foi aplicada uma metodologia mista nas seguintes fases: primeiro, foi analisado o registro da Polícia Nacional da Colômbia, que incluía 286 604 crimes sexuais denunciados no período mencionado. Em seguida, foi elaborado um diagrama de loop causal do System Dynamics para destacar o papel da denúncia de crimes sexuais no sistema penal colombiano. As principais conclusões desse artigo incluem que 85.73 % das denúncias estão associadas principalmente a mulheres e 68 % das vítimas são menores ou adolescentes de ambos os sexos. Deve-se observar que a legislação colombiana divide esses crimes entre aqueles que são agravados pela violência e aqueles que não são. Também foi constatado que, quando a vítima era mulher, os crimes ocorreram em uma proporção maior com o agravante de violência. Também se pode concluir que, durante o confinamento da pandemia da COVID-19, houve uma diminuição no número de denúncias de crimes sexuais devido ao seu efeito negativo sobre a possibilidade de mulheres adultas denunciarem crimes. Além disso, constatou-se que é imprescindível direcionar as políticas criminais para a prevenção geral positiva dos crimes sexuais, sem instrumentalizar os indivíduos, e visando à conclusão de um acompanhamento detalhado das denúncias.

Palavras-chave:

Crimes sexuais, estatísticas criminais, política criminal, agressor sexual (fonte: Tesouro Criminológico - Instituto Inter-regional das Nações Unidas para Pesquisa sobre Crime e Justiça - UNICRI). Dinâmica de notificação policial (fonte: autores).

Introduction

Sexual violence has been recognised worldwide as a public health problem given that the human, sexual and reproductive rights of the victims are systematically violated when it occurs (Álvarez-Correa et al., 2021). The populations most vulnerable to this type of violence due to their age, position in the family and in society are

boys, girls, adolescents and women, even though men are not exempt (p.128).

The exacerbation of the aforementioned problem and better levels of awareness in terms of its reporting or the involvement of the State in addressing this type of sexual crimes against minors (0 to 18 years of age) have caused administrative delinquency records to increase recently

(Arrieta et al., 2020). Said increase in records has also contributed to the expansion of prohibited conducts to protect the legal right to freedom, integrity and sexual education of minors (Arrieta et al., 2020, pp. 269-270). However, Reyes (2019) partly attributes the growing attention on the phenomenon of sexual crimes to a punitive populism that acts counterproductively on the human rights of prisoners as it instrumentalises them in the administration of justice. Punitive populism does not generate real change nor a significant reduction of sexual crimes against minors, what it does cause is condemnation of the victims to impunity as it saturates the system.

There are already descriptive statistical studies in Colombia concerning the following areas of sexual violence: medical-legal examinations (Arrieta et al., 2020), number of cases of sexual crimes (Laboratorio de Economía de la Educación, 2022), comparison of judicial sentences (Reyes, 2019), the situation of those prosecuted by sentence according to judicial level, sex of the judges, magistrates, type of crime, age of the victim (Buenahora et al., 2010) and crimes that occurred within and outside the framework of the armed conflict (Cabrera, 2020). The Laboratorio de Economía de la Educación (2022) highlighted the underreporting of this crime in Colombia and its negative effects, differentiated by the age of the victims, especially underscoring those committed against minors. In addition, the COVID-19 pandemic disproportionately affected population groups that were already vulnerable by increasing the risk of violence (World Bank Group, 2022). For example, young women became even more vulnerable to child marriage, early pregnancy and gender-based violence, factors that reduced their likelihood of continuing their education (United Nations, 2020). In consequence, gender-based violence and intimate partner violence substantially increased (OXFAM, 2021).

Considering the context described above, the guiding research question for our article was proposed: what have been the dynamics of sexual crime reporting in Colombia during the 2010-2022 period? Accordingly, the objective of this article was to draw attention to the dynamics of sexual offense complaints in Colombia over the period mentioned. In order to meet the research objective, this paper is divided into four parts. First, the introduction, in which we have already set forth the relevance of our research. Then, our research methodology and the documentary sources used are described. Subsequently, the results are explained in detail and discussed in the light of related documentary sources. Finally, several conclusions are presented.

Materials and Methods

The methodology for this research was a non-experimental, applied, design with a qualitative approach, descriptive in scope and with documentary sources. Thus, the methodology consisted of characterising the reports of sexual crimes registered from January 1st, 2010 to December 31st, 2022, consulting the Crime Observatory of the Colombian National Police. (known in Colombia as PONAL) (Policía Nacional de Colombia, 2022). It should be noted that the Observatory's database may be under-recorded as it contains cases in which the victims or someone close to them registered a complaint to the Colombian National Police. The consolidated database of sexual crimes in Colombia for the period 2010-2022 can be consulted in González (2023a) and the database of cases per 100 000 inhabitants in each municipality of Colombia, in González (2023b). To meet the objective of raising awareness of the dynamics of sexual offense complaints in Colombia between 2010 -2022, the Tableau® software, which specialised in Data Visualisation, was used. With the software, an interactive public access tool was designed to allow readers and interested parties to consult detailed information on the 32 departments, the Capital District, and the 1123 municipalities into which the country is currently politically and administratively divided.

The reflection added at the end –regarding the relevance of the studies and the scientific understanding of sexual violence– was based on Álvarez-Correa et al. (2021) and Gómez and Zapata (2020). For this reflection, dynamic hypotheses were formulated in accordance with the observations obtained in the previous phase. The dynamic hypotheses were stated using a System Dynamics causal loop diagram, as it provides a language for expressing the relationships within a system and for explaining their behaviour (Aracil & Gordillo, 1997; Bala et al., 2017). In this case, the dynamic system addressed the criminal policy in the Colombian penal system –which is made up of the legislative, judicial and executive subsystems (Gómez & Zapata, 2020)– that fits the modelling of criminal behaviour (Romera et al., 2012).

Sample

With the implementation of the methodology, a total of 286 604 complaints (Table 1) reported between 1 January 2010 and 31 December 2022 were collected.

PONAL provided access to information on the date of the report, the date of the crime, the department and municipality of occurrence, the weapons or means used to commit the crime and the sex and age group of the victim (Policía Nacional de Colombia, 2022). The ages of the victims in the database were classified into three groups following the Code of Childhood and Adolescence: children (0 to 12 years of age), adolescents (12 to 18 years of age) and adults (over 18 years of age) (Ley 1098 de 2006). The data regarding the age, in years, of the victims was available for 2019, which made it possible to further explore other directions in that year. Additionally, variables on education, health and security were collected for 2019 and 2020 from the National Planning Department (2020). These two years were particularly chosen because the Municipal Performance Measurement did not report statistical results on education from 2010 to 2018 (Departamento Nacional de Planeación, 2020).

Table 1. | Number of reports of sexual crimes in Colombia between 2010 and 2021

Year	Number of Reports
2010	6887
2011	8233
2012	11 474
2013	11 717
2014	12 777
2015	21 920
2016	23 934
2017	28 350
2018	36 791
2019	38 204
2020	28 626
2021	25 069
2022	32 622
Total	286 604

Results

Figure 1 shows an increase of both men and women reporting complaints in the registry between 2010 and 2019, as noted above. This rise can be explained either by an intensification of crime, or because the registry was improved, or the reporting was made easier (Arrieta et al., 2020; Reyes, 2019). It is certainly clear that reporting decreased during the COVID-19 confinement

and during 2021. The number of complaints registered for 2017 and 2021 were similar.

In addition, a trend was observed in the distribution of sexual crimes reported in Colombia: 85.93 % of these reports involved a female victim and 14.7% involved a male victim (Table 2).

Figure 1. | Number of reports of sexual crimes by year and sex

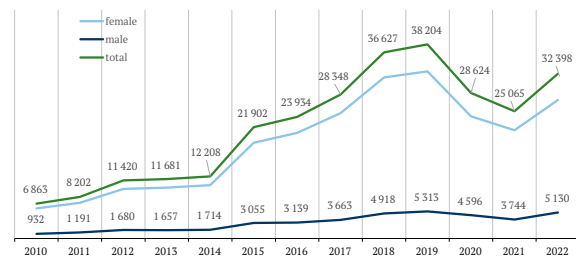


Table 2. | Percentage of reports by sex per year

Year	Male	Female
2010	13.58 %	86.42 %
2011	14.52 %	85.48 %
2012	14.71 %	85.29 %
2013	14.19 %	85.81 %
2014	14.04 %	85.96 %
2015	13.95 %	86.05 %
2016	13.12 %	86.88 %
2017	12.92 %	87.08 %
2018	13.43 %	86.57 %
2019	13.91 %	86.09 %
2020	16.06 %	83.94 %
2021	14.94 %	85.05 %
2022	15.83 %	84.17 %
Total	14.27 %	85.73 %

Based on the population statistics reported by the National Administrative Department of Statistics (DANE), the cases reported by year and sex per 100 000 inhabitants were calculated (see Table 3). Every year, the number of cases of complaints by women for every 100 000 women is between 5 and 6.4 times greater than the number of cases of complaints for every 1100 men. In other words, for every complaint in which the victim was a man, there were between 5 and 6.4 complaints in which the victim was a woman.

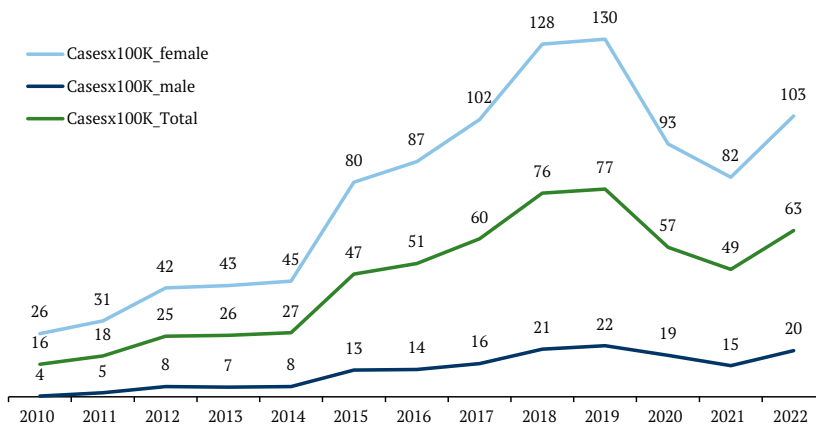
Table 3. | Cases reported by sex and by year per 100 000 inhabitants

Year	Female cases	Male cases	Women population	Men population	Cases x 100K female	Cases x 100K male	Cases x 100K Total
2010	5931	932	22 486 954	21 599 338	26.4	4.3	15.6
2011	7011	1191	22 726 456	21 826 960	30.8	5.5	18.4
2012	9740	1680	22 955 760	22 045 811	42.4	7.6	25.4
2013	10024	1657	23 178 743	22 256 199	43.2	7.4	25.7
2014	10494	1714	23 401 956	22 464 054	44.8	7.6	26.6
2015	18847	3055	23 636 050	22 677 848	79.7	13.5	47.3
2016	20795	3139	23 911 986	22 918 130	87.0	13.7	51.1
2017	24684	3663	24 222 239	23 196 961	101.9	15.8	59.8
2018	31709	4918	24 685 207	23 573 287	128.5	20.9	75.9
2019	32891	5313	25 271 995	24 123 683	130.1	22.0	77.3
2020	24028	4596	25 780 133	24 627 514	93.2	18.7	56.8
2021	21321	3744	26 153 485	24 963 893	81.5	15.0	49.0
2022	27268	5130	26 452 553	25 230 139	103.1	20.3	62.7

In Colombia, sexual crimes have an unquantified underreporting that may be due to factors such as the impossibility for minors to file reports, when the aggressors are the victim’s own parents or caregivers, the economic dependence of the victim on their aggressor, the lack of adequate institutional channels for complaints, the victim’s fear of making the crime public, social signalling, etc. For this reason, there is no global information on the behaviour concerning this type of crime. However, the registered complaints make it sufficiently clear that women are those most affected by this type of crime compared to men by a factor that is 5 or 6 times greater.

According to Figure 2, the peak of sexual crime reports per 100 000 inhabitants occurred in 2019 with 77 cases per 100 000 inhabitants. Likewise, in 2019, the historically highest number of complaints was filed for every 100 000 men or women. In the case of men, 22 complaints were filed for every 100 000 men and in the case of women, 130 complaints for every 100 000 women. This growing trend was only attenuated in records during the years corresponding to the confinement due to the COVID-19 pandemic. However, this did not mean that the phenomenon of sexual crime had diminished, but simply that there was no record of it. After the years 2020 and 2021, the growing trend that preceded the occurrence of the pandemic appeared again.

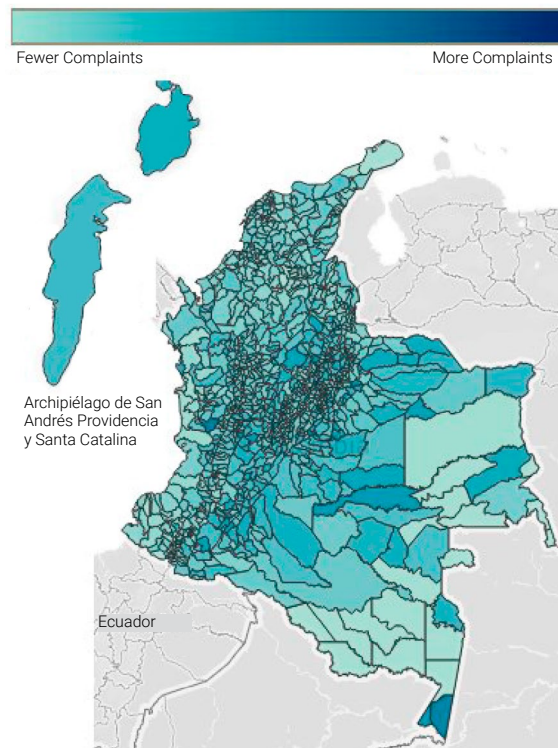
Figure 2. | Reports of sexual offenses per 100 000 inhabitants between 2010 and 2022



The sexual crime visualisation tool in Colombia was created by the authors of this article using the Tableau® software (González, 2023c). This tool –which is publicly accessible– allowed us to observe in detail the phenomenon of the occurrence of sexual crime by department, municipality, year, cases, cases by sex, and cases per 100 000 male or female inhabitants.

Figure 3 shows the visualisation, by way of georeferencing on the map of Colombia, of the total complaints for the 1123 Colombian municipalities in the period 2010-2022. The darker shades of blue reveal the highest occurrence of sexual crimes per 100 000 inhabitants in the 32 departments of the political and administrative division of Colombia. The public is invited to use the interactive visualisation tool to consult the details in each of the municipalities based on the interest of the reader according to the total number of cases, female cases, male cases, evolution cases, evolution cases per 100 000 inhabitants and municipalities.

Figure 3. | Georeferencing of reports of sexual offenses per 100 000 inhabitants between 2010 and 2022 in Colombian municipalities



As an example, when consulting the visualisation tool and filtering the department of Tolima, as in Figure 4, it can be seen that the three municipalities in this department with the most cases between 2010 and 2022 are Ibagué, Espinal and Chaparral with 4585, 586

and 504 cases, respectively. However, the municipalities that register the most cases per 100 000 inhabitants are Rovira, San Antonio and Carmen de Apicalá with 112.7, 98.2 and 94 cases per 100 000 inhabitants.

Figure 4. | Cases in Tolima and cases per 100 000 inhabitants in its municipalities



In terms of age, 41% of all the crimes reported corresponded to underage victims, 27% to adolescents and 32% involved adults. Figure 5 shows a constant pattern related to the percentage of victims by age group. However, during the peak in the first year of the pandemic (2020), 50% of the victims were underage.

Figure 5. | Percentage of reports by age group between 2010 and 2022

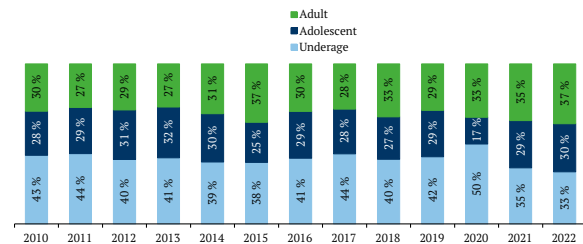


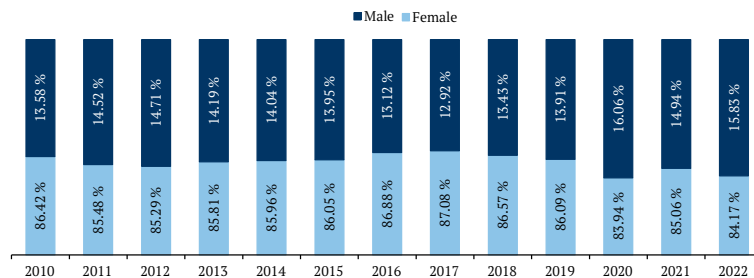
Table 4 shows the total number of complaints by department. The places with the highest number of reports are Bogotá (37 151 cases), Antioquia (30282), Valle del Cauca (26560), Santander (17449), and Cundinamarca (12191).

Table 4. | Total reported sexual crimes between 2010 and 2022

Department	Cases	Department	Cases	Department	Cases
Bogotá D.C.	36 427	Nariño	7 741	Putumayo	2 559
Antioquia	34 338	Cauca	7 366	Chocó	2 279
Valle	28 727	Córdoba	7 222	Arauca	2 224
Cundinamarca	21 304	Norte De Santander	6 863	Amazonas	1 029
Santander	18 692	Caldas	6 736	Guaviare	972
Atlántico	12 704	Magdalena	6 428	San Andrés	550
Huila	11 174	Cesar	5 639	Vichada	379
Tolima	10 276	Sucre	5 035	Guainía	353
Bolívar	9 872	Caquetá	3 897	Vaupés	224
Meta	8 947	Quindío	3 868	Total	286 604
Boyacá	8 709	Guajira	3 149		
Risaralda	8 303	Casanare	2 618		

When analysing the period of pandemic confinement, in order to identify whether the possibilities that women had to report sexual violence had been reduced, it was found that under similar conditions of occurrence of sexual violence and opportunity for reporting, an equal

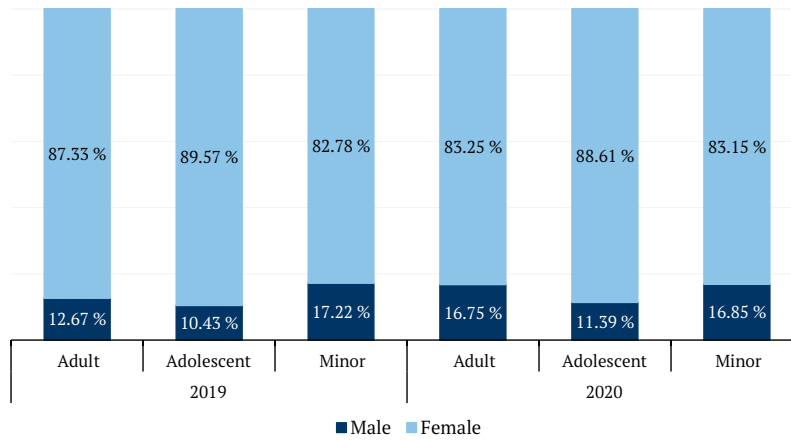
proportion of reports would be expected by gender. In 2020, not only the overall number of complaints decreased, the proportion of reports made by women was also less (see figure 6).

Figure 6. | Proportion of reports by gender between 2010 and 2022

Although the causes of the reduction in the number of reports can be attributed to a lower occurrence of certain sexual crimes, it may also be due to the difficulty that women had to report the situations to which they were exposed during the confinement. In 2019, the number of female victims was 32 891 (86.09%), while in 2020, the number of female victims was 24 028 (83.94%). Under the statistical assumption of equal proportions in these two years, a standard normal test statistic of 7.27 was obtained and a p value of 0.0000, which means that there was a significant difference in the proportion of reports involving female victims in 2020 compared to 2019. The same result was obtained when comparing 2020 with previous years (2010 to 2018). Based on the information above we can conclude with a high degree of certainty that the possibility of reporting was significantly limited for women, assuming that there were no structural changes in the occurrence of sexual crimes (*Ceteris Paribus*).

In relation to female children in Colombia, Figure 7 reveals that the proportion of complaints involving female underage children increased from 13 270 out of a total of 16 030 (82.78%) in 2019 to 11 697 out of 14 067 (83.15%) in 2020. The p value in a statistical test of difference of proportions, under the assumption that there was no increase or decrease in this ratio is 0.2784, which means that there is no significant difference between these two ratios. In other words, the pandemic confinement had no effect on the proportion of complaints in which the victim was a female underage child. Moreover, no significant difference was found in the proportion of adolescent females reporting during the first year of pandemic confinement compared to the years 2010 to 2018. This was interpreted as a greater difficulty to make formal reports when the victim was an adult woman.

Figure 7. | Proportion of reported sexual offenses by gender and age group between 2019 and 2020



Since the PONAL also reported the age of the victims in 2019, it was possible to expand the knowledge of this phenomenon in that year. The average ages of male and female victims of sexual offenses in 2019 were 15.6 and 14.13 years respectively. The results of an ANOVA test applied revealed that, in an *f* statistic of 91 016 and a *p*-value of 0.000, there is a significant difference in the average age at which males and females were assaulted in 2019. That is, women were assaulted at a higher rate and men were assaulted at a younger age than women on average (1.5 years). Accordingly, in 2019, 50% of female victims were 13 years old or younger, while 50% of male victims were 12 years old or younger.

Figure 8 shows that half of the victims were between the ages of 12 and 13. Furthermore, the figure reveals that there were three important and consistent patterns for both males and females: a considerable increase in the volume of complaints at the ages of 13, 18 and 40. The first two correspond to puberty and the age of majority in Colombia, respectively. Regarding the third there is still no hypothesis. It should be noted that the ages of the female victims were between 0 and 93 years of age and for males the ages were between 0 and 86 years of age, even though the histogram in figure 8 has been cropped at the 42-year level for both men and women.

Figure 8. | Age distribution of victims of sexual offenses in Colombia in 2019 by gender

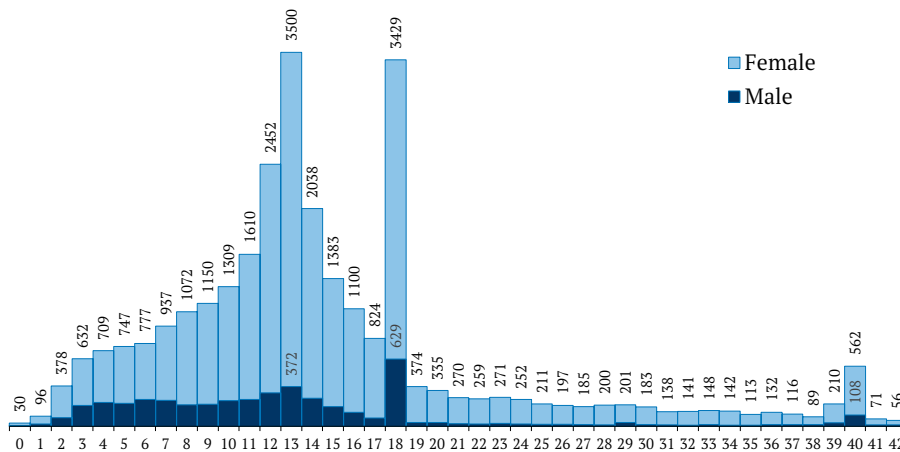


Table 5 (left) shows the number of complaints during the period 2010-2022 broken down by sex and age group. There is a clear difference between the percentages of complaints that correspond to girls up to twelve years

of age within all complaints by women (39.1%) and that of boys up to twelve years of age within all complaints by men (49.7%) (Table 5 right).

A possible difference in the ages of the male and female victims is now considered. For this, the information on age group and sex was added, using a chi-square test:

$$\chi^2 = \sum \frac{(O_i - E_i)^2}{E_i}$$

Under the assumption of independence between age groups and sex, a test statistic of 2001.4 was obtained. Comparing this result with a chi-square distribution with 2 degrees of freedom resulted in a *p* value of 0.0000, that is, there is a significant difference in the

distribution of the age group of the male and female victims. The above difference is observed mainly in the first two age groups. In the first age group, children up to 12 years of age are the victims in almost half of the reports of sexual crimes. This figure is 10% higher than the percentage of complaints in which girls up to 12 years of age were the victims (39.1%). This means that, although women and girls are the main victims of sexual crimes in Colombia, boys are attacked at younger ages. The test statistic does not show differences in the percentages of female or male adult victim complaints. These results are consistent when the results of this test are analysed in the years between 2010 and 2022.

Table 5. | Cases by sex and age (left) column percentage (right)

Cases			Column percentage		
Age	Female	Male	Age	Female	Male
Underage	95 594	20 195	Underage	39.1 %	49.7 %
Adolescent	70 261	8 057	Adolescent	28.8 %	19.8 %
Adult	78 495	12 366	Adult	32.1 %	30.4 %

Lastly, Table 5 shows the principal frequent sexual offenses committed against women and their occurrence in men. For example, the crime of sexual intercourse with a minor under 14 years of age had 12 323 female victims and 2287 male victims. This crime corresponds to 42.8% of the sexual offenses reported in 2019, in which the victim was a woman and 49.9% where the victim was a man. Although researchers have long acknowledged that all sexual crimes are in themselves a form of violence, Colombian legislation classifies sexual crimes differentiating the cases in which there is an aggravating circumstance of the occurrence of violence. For this reason, henceforth, the aggravating circumstance of the use of violence will be discussed in the terms that are registered by the PONAL.

PONAL records highlight two crimes that include the aggravating factor of being committed with violence: violent sexual assault and violent sexual intercourse. At the end, Table 6 shows the total number of cases of sexual crimes that had the aggravating factor of violence with male victims (729) and female victims (6407). That is, the percentages of reports of crimes committed with violence are 15.9% for men and 22.2% for women. A statistical test for comparison of proportions yielded a statistic of -3.92 using a pooled standard error and a *p*-value of 0.00001. This means, there is statistically significant evidence to affirm that the proportion of sexual offenses committed with violence occurs at a higher rate in women than in men.

Table 6. | Most frequent sex crimes committed against women in 2019 and their occurrence in men

Crime	Occurrence among male victims	Male victims	Occurrence among female victims	Female victims
Sexual activity with a child under the age of 14	49.9 %	2287	42.8 %	12 323
Abusive carnal intercourse with a child under the age of 14	19.2 %	882	19.3 %	5549
Violent carnal intercourse	8.2 %	378	12.9 %	3711
Violent sexual intercourse	7.7 %	351	9.4 %	2696

(Continued)

Crime	Occurrence among male victims	Male victims	Occurrence among female victims	Female victims
Sexual harassment	5.7 %	263	7.2 %	2074
Carnal intercourse or abusive sexual activity with a person incapable of resisting	3.9 %	179	4.1 %	1171
Pornography involving underaged individuals	4.1 %	186	2.8 %	814
Carnal intercourse or sexual intercourse with a person incapable of resisting	1.3 %	58	1.6 %	470
Total number of violent crimes	15.9 %	729	22.2 %	6407

Final Reflection

After conducting a meticulous analysis of a detailed and updated database (Policía Nacional de Colombia, 2022), we propose a final reflection regarding its usefulness to advance in the comprehension of sexual violence with the objective of preventing it. Likewise, the results of the studies for understanding the reality of sexual violence not only feed criminal investigation, but they also nourish scientific debate and allow projecting, proposing, designing or reconsidering alternatives and educational, preventive and/or interventional approaches (Álvarez-Correa et al., 2021, p.129). The final reflection that appears here can be added to the three presented by Álvarez-Correa et al. (2021) in that: a) Although there are investments in prevention and intervention, sexual crimes continue to increase. b) Priority attention to minors who may manifest criminal behaviour is vital. However, apparently, there is not enough specialised staff for such care. c) Efficiency in criminal investigation is the best way to prevent and contain sexual assault, but how this efficiency can be achieved is not clear.

Our final reflection was captured in the causal loop diagram depicted in Figure 9, which reveals the dynamic hypotheses for the role of complaints in terms of causal relationships within the criminal policy system in Colombia. The following loops are highlighted in order to emphasise the need for an *ex-ante* rather than an *ex-post* approach to sexual crimes, reaffirming that in general, Colombian criminal policy has a reactive approach towards the correction and redemption of punishable acts, through sanctions or penalties, as it is clear that the interaction between the components of the system is linear (Gómez & Zapata, 2020, p. 107) and requires activation of prevention areas.

It is important to note that sexual crimes fall within the scope of protected legal rights such as the dignity of persons and, therefore, are covered by the same

judicial, penal and penitentiary system, as all other crimes in Colombia. That is, on the one hand, there are no specialised judges for their prosecution (since they all belong to the criminal circuit, even though there are specialised prosecutors) and, on the other hand, the complaints enter a system that is already congested.

Loop 1: The quality of the statistics will improve by having a greater number of reports that collect the complete data. In this way, it will be possible to identify, in a more precise way, the punishable conduct within the entire legal field and within society in general. This identification of punishable conduct makes public opinion more severe regarding sexual crimes, thereby increasing the perception of vulnerability and decreasing trust in the institutions of the Colombian penal system. This distrust means that people are less likely to access reporting mechanisms because they are seen as inefficient and ineffective, causing sexual crimes to be exacerbated and thus increasing the number of complaints.

Loop 2: With a low number of reports, there is a counter-intuitive behaviour. The effectiveness of attention to victims improves because the limited resources are distributed among fewer victims, diluting the identification of punishable conduct. This exaggerated identification of punishable conduct leads to a high level of confusion regarding sexual offenses in public opinion (which may result in the victim and offender not recognising that the acts constitute a crime or in confusion about which conduct is understood as a crime). The weakening of public opinion concerning sexual offenses makes people feel less vulnerable, increasing their reliance on institutions. Thus, people are more determined to access reporting mechanisms, resulting in an increase in the number of complaints.

Loop 3: A higher number of reports with more detailed information collected results in less effective attention to victims because resources are limited and must be distributed over a significant number of people

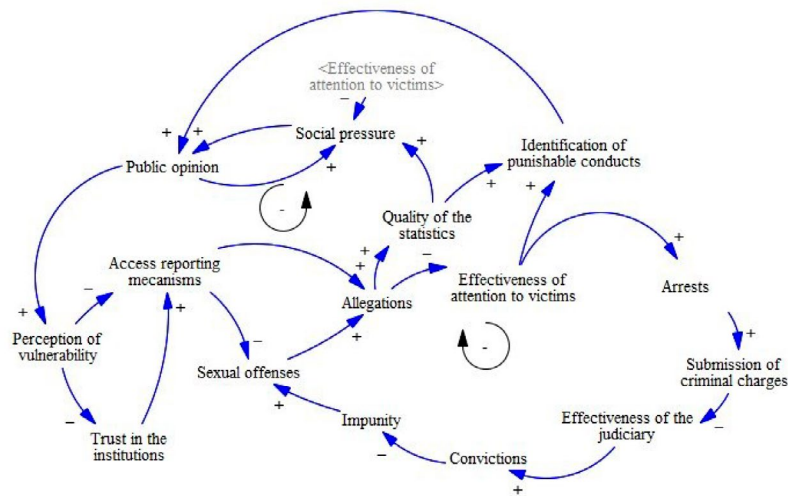
requiring assistance. As the attention to victims loses effectiveness, the arrests of aggressors do not take place in the appropriate conditions in accordance with legality and constitutionality, leading to fewer indictments being consolidated. Thus, the effectiveness of the judiciary is undermined. Low judicial effectiveness means fewer perpetrators being convicted and, therefore, greater impunity, increased sexual crimes and, consequently, a greater number of sexual offenses reported.

If each part of the investigation complies with the legal and constitutional precepts of a typical conduct (sexual offense), the aggressor can be convicted,

reducing impunity, and acting as a deterrent to sexual crimes. In the same way, the rights of both victim and perpetrator are protected and *de facto* actions against the alleged aggressor are counteracted.

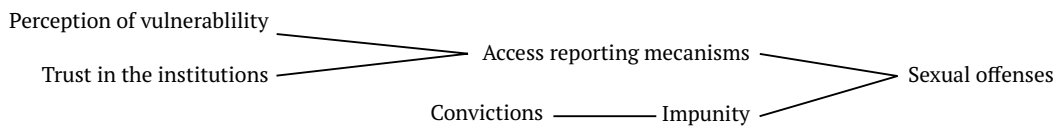
When trying to understand the reasons why sexual crimes increase or decrease in Colombia, it was observed that among the variables that indirectly affect the number of sexual crimes are the perception of vulnerability, trust in institutions and their actions, and the number of aggressors being convicted. The variables that directly affect are access to mechanisms to report sexual crimes and impunity (see figure 10).

Figure 9. | Dynamic hypothesis for the role of complaints in the system



Source: Based on Gómez & Zapata (2020) and Romera et al. (2012).

Figure 10. | Incidence on the number of sexual crimes in Colombia



Conclusions

Reports of sexual crimes are a crucial element for analysing the phenomenon of sexual violence in any part of the world. The statistics collected by the National Police of Colombia have been available since 2010 to date and provide an insight into one component of the many that are necessary to understand the dynamics of this phenomenon. However, another part remains unknown and encompasses all those victims who

cannot or do not want to come forward and report the crimes. Behind a complaint for a sexual crime lies the occurrence of a crime itself, which most often targets women. Nevertheless, there is also a component that indicates the possibility of the formalisation of the complaint.

Many victims of sexual abuse in Colombia cannot report due to various reasons, such as being victimised at a very young age, fear of the attackers, disregard of fundamental rights, fear of re-victimisation, fear

of public scorn, lack of knowledge or absence of institutional channels for reporting, and more. However, addressing this issue requires specific social conditions, including a range of institutional care centres prepared to deal with complaints of sexual offenses that allow victims or their close circle to file complaints without any obstacles. Additionally, it requires social awareness that recognises the importance of reporting for society as a whole and understands the usefulness of this mechanism in mitigating this phenomenon.

Reported sexual crimes in Colombia, according to PONAL records, have been on the rise since 2010, except for a decrease in cases during the COVID-19 pandemic confinement of the population during 2020 and 2021, which placed them at 2017 levels. The phenomenon of sexual violence in Colombia, based exclusively on cases with formal reports registered by the PONAL, mainly affects women, since in 85.73% of the complaints the victim was a woman. Moreover, in 68% of the cases, the victims were underaged or adolescent girls and boys. Children in the first age group, up to 12 years old, are almost half of the victims in the reports of sexual crimes. This figure is 10% higher than the percentage of complaints in which the victim is a girl up to 12 years of age (39.1%). This means that, although women and girls are the main victims of sexual crimes in Colombia, as already mentioned, male children are attacked at younger ages.

When the types of sexual crimes that were reported during 2019 were analysed and the punishable conduct with the aggravating circumstance of violence was identified, it was found that the highest proportion of these crimes occurred when the victim was a woman. This highlights how sexual violence in Colombia is concentrated among underaged women. It was also possible to conclude that the confinement of the population during the COVID-19 pandemic generated a decrease in the number of reports of sexual crime and a negative effect on the possibility of adult women reporting those crimes. That is why we assumed that there was no structural change in the occurrence of the phenomenon of sexual violence.

Although the interest in preventing sexual crimes and caring for victims has grown in recent years, the causal loop diagram concluded that Colombia is not yet at the desired point in that regard and that efforts towards an *ex-ante* orientation based on information, education, and public opinion on this type of crime cannot be spared. Similarly, the importance of the quality of the information captured in the reports was highlighted, as it enriches the knowledge of sexual crimes and, therefore, promotes their prevention, the progress in victim care and, consequently, the

advancement as a society in respecting human rights. In this same sense, it is very important to use modelling, visualisation, analysis and processing tools that provide knowledge and elements of judgment for those who are part of designing the criminal policy in Colombia: the judicial system, the penal system and the prison system.

The design of a System Dynamics Stock and Flow diagram to simulate the long-term behaviour of sexual offense reporting was recognised as an opportunity for further work.

Conflict of interest

There was no conflict of interest among the authors of this academic research. We declare that we have no financial or personal relationship that could influence the interpretation and publication of the results obtained. Likewise, we assure that we always comply with ethical standards and scientific integrity, in accordance with the guidelines established by the academic community and those dictated by this journal.

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