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THE (IN)VISIBILITY OF ACCIDENTS WITH KITE STRING: A DOCUMENTARY RESEARCH IN DIGITAL MEDIA

A (in)visibilidade dos acidentes com linhas cortantes de pipa: um estudo documental em mídias digitais

La (in) visibilidad de los accidentes con hilo de la cometa: un estudio documental en medios digitales

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ABSTRACT

Objective: to describe the epidemiological characteristics of accidents with kite cut lines reported in digital media news. **Method:** quantitative documentary study, with data from 2016 to 2020. A form was used, highlighting the source of the news, the victim's age, sex, type of locomotion, injured party, severity of the injury, cases of death, month and accident region. The data was analyzed in Excel. **Results:** of the 122 news items, 87 (71.3%) involved motorcyclists, 59 (48.4%) were between 19 and 59 years old, and 42 (71.2%) were male. It is noteworthy that 29 (23%) were children and adolescents (0 to 18 years old). The most affected parts were neck 97 (79.5%) and face 13 (10.7%). **Conclusion:** there is a significant number of accidents. Due to the (in)visibility of this problem in the scientific literature, more studies and educational actions in schools and health services are recommended.

DESCRIPTORS: Accident prevention; Accidents; Injuries; Play and playthings; Indicators of morbidity and mortality.

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RESUMO

Objetivo: descrever características epidemiológicas dos acidentados com linhas cortantes de pipa reportados nas mídias de notícias digitais. **Método:** estudo documental quantitativo, com dados de 2016 a 2020. Utilizou-se formulário, destacando-se fonte da notícia, idade da vítima, sexo, tipo de locomoção, parte do corpo lesionada, gravidade da lesão, se resultou em óbito, mês e região dos acidentes. Os dados foram analisados no Excel. **Resultados:** de 122 notícias, 87 (71,3%) envolveram motociclistas, 59 (48,4%) possuíam de 19 a 59 anos e 42 (71,2%) eram do gênero masculino. Destaca-se que 29 (23%) eram crianças e adolescentes (zero a 18 anos). O pescoço 97(79,5%) e face 13 (10,7%) foram as partes do corpo mais acometidas. **Conclusão:** constata-se um número expressivo de acidentes com o uso de linha cortante da pipa. Pela (in)visibilidade deste problema na literatura científica, recomenda-se outros estudos e ações educativas em escolas e serviços de saúde.

DESCRITORES: Prevenção de acidentes; Acidentes; Lesões; Jogos e brinquedos; Indicadores de morbimortalidade.

RESUMEN

Objetivo: describir las características epidemiológicas de los accidentes con líneas de corte de cometas reportados en noticias de medios digitales. **Método:** estudio documental cuantitativo, con datos de 2016 a 2020. Se utilizó un formulario, destacando la fuente de la noticia, edad de la víctima, sexo, tipo de locomoción, parte lesionada, gravedad de la lesión, casos de muerte, mes y región del accidente. Los datos se analizaron en Excel. **Resultados:** De las 122 noticias, 87 (71,3%) involucraban a motociclistas, 59 (48,4%) tenían entre 19 y 59 años y 42 (71,2%) eran del sexo masculino. Se destaca que 29 (23%) eran niños y adolescentes (0 a 18 años). Las partes más afectadas fueron cuello 97 (79,5%) y cara 13 (10,7%). **Conclusión:** existe un número importante de accidentes. Debido a la (in)visibilidad de este problema en la literatura científica, se recomiendan más estudios y acciones educativas en escuelas y servicios de salud.

DESCRIPTORES: Prevention de accidentes; Accidentes; Lesiones; Juegos e implementos de juego; Indicadores de morbimortalidade.

INTRODUCTION

For being simple, low cost and accessible, flying kites is a game that is part of the childhood of many people and promotes interaction between generations, because it is a practice that is embedded in the culture of society. However, it is one of the activities that can lead children to suffer some accidents such as falling from slabs, being run over by cars, getting cut, being caught in a high voltage power line, and even leading others to death by the use of kite cutting lines.[1]

In India, traditionally, kite flying is a popular sport that is believed to have been introduced to the country by Chinese travelers 600 AC. It evolved from elegant toys used at celebratory events, to a national pastime made of paper, bamboo, and thread, an intensely competitive sport marking a number of local festivals and the end of winter in this country (January), yet children are often found running after the kites, under rooftops, or even attempting to "cut" other kites with the use of cutting lines.[2]

In Brazil, kite cutting lines are culturally prepared in advance, i.e., cutting substances such as ground glass and/or iron powder with glue for cerol and ground glass, ground quartz and aluminum oxide with glue for the chile line are placed on them, with which the child, by "releasing the kite" can cut it from another person in the "kite duel".[1]

Therefore, this type of play, especially when using a cutting line, may be involved in the increase in epidemiological data on morbidity and mortality from external causes, and in this sense, it has great importance for public health.

A study on playing shows that the child, when developing such activity, integrates all the necessary aspects for its full development. This occurs because it is during childhood that neurological, motor, communication, emotional, and social functions are being built in a more intense way due to the large amount of stimuli.[3] Due to this process of building skills, adult supervision is essential during play, because some games offer risks that children are unable to predict, such as playing with a kite.

According to a study, one of the objectives of which was to characterize the factors that predispose children and adolescents to falling from a slab, leisure activities were the first causes, with 25 cases (86.2%), and among the leisure activities involved in falling from a slab were those caused during the game of flying a kite, with 11 cases (37.9%). It was found that in 21 cases (72.4%) the children or adolescents were not accompanied by a responsible adult.[4]

Playing with a kite is a very rich source of learning for children. Most of the time there is the participation of other people, allowing the exercise of cooperation and sharing of information, which occurs informally, in a playful and non-imposed way, and gradually consolidates according to the situations, which makes the game even more interesting.[5]

There are also individual contributions to the extent that there is the discovery of skills and limitations that can be improved or perfected to overcome a limit: to project oneself in the heights using a toy and keep it under control with distance maneuvers with the line. Moreover, during the game, there is a relationship with the landscape and the wind, which is able to develop in the player the sensibility about the rhythms and cycles of nature. From this perspective, the kite produces effects on the personal history of each individual who uses it, not only because of the game itself, but also because of everything that involves it, such

as the encounter, the movement, the exchange, the surprise, the dispute, the nature, and the culture.[5]

However, it should be noted that the children and/or adolescents who use the cutting line do not have an understanding and dimension about its use as a potential problem, thus, this situation does not present a direct impact on play.

In this context, the need emerged to conduct a literature search to identify studies published in periodicals on the subject of kite cutting lines. The following databases were searched: Virtual Health Library (VHL); Latin American and Caribbean Literature on Health Sciences; PUBMED; and, Cochrane Library studies that answered the following guiding question: What are the scientific studies about accidents caused by playing with kites and the sharp lines? We used the descriptors and/or key words: "accidents"; "child"; "violence", "kite" conjugated as follows: "accidents" AND "child" AND NOT "violence"; "accidents" AND "child" AND NOT "violence"; "child" AND "accidents" AND "kite". The time frame for this search was from 2010 to 2020, and the data collection period was March and April 2020.

The initial results were 37,522 articles in the BVS; 11 in PUBMED; 26 in COCHRANE and 8,023 in LILACS. Applying as inclusion criteria articles from the last ten years, with full text, freely available in Portuguese and English, 9,034 were found in the BVS; two in PUBMED; six in COCHRANE and 390 in LILACS. From then on, all the titles of the articles were read, and in some studies, it was necessary to read the abstracts. After reading them and meeting the inclusion criteria, 9,033 studies were excluded from the VHL; two from PUBMED; six from COCHRANE and 390 from LILACS, considering that they approached accidents with children, but did not correlate them to playing with a kite and the use of the cutting line, as well as, the repeated articles, only one article in the VHL was considered. Thus, the final result was one (1) study selected.

This study addresses the epidemiology of accidents caused by sharp lines in a trauma hospital in Belo Horizonte. The collection was done in medical records from 2005 to 2009 and identified 211 victims attended, 94% were male, the highest concentration of attendance was in June and July, the average age was 15 years and the upper limbs were the most prevalent site of injury. Among motorcyclists and cyclists, the face and neck were the most injured sites. It is noteworthy that there were two deaths among motorcyclists whose injuries were to the neck.[1]

In view of these results, there is a gap in the literature on the subject, and so we sought to answer the following research question: what are the epidemiological characteristics of those injured in accidents with kite cutting lines published in digital media? To answer the question, we elaborated as an objective: to describe the epidemiological characteristics of accidents with kite cutting lines reported in digital news media.

METHOD

Type of study

This is a retrospective documentary study of news found in digital media, whose temporal cut was from 2016 to 2020 with a quantitative approach. The search for the news was performed in the period from June to August 2020, through the digital platform Google, through the toolbar "News", and the news reported, of the accidents with kite cutting lines throughout Brazil were selected.

Selection Criteria

The keywords "cerol", "cerol 2020", "cerol 2019", "cerol 2018", "cerol 2017" and "cerol 2016" were used, from them 1,230 news items were found. The evaluation of the titles and content was made by means of the inclusion criterion: news of accidents resulting from kite cutting lines, published in the last five years, keeping only one among the duplicates. The exclusion criteria were accidents with animals and police inspection/apprehension of stores that sold or carried the kite lines.

Data collection

A previously prepared form was applied that contained the following information: news source, age of the accident victim, gender, type of locomotion, injured body part, severity of the injury and whether it resulted in death, month of the accident, and the region of the country where the accident occurred. Data were collected from June to August 2020.

Data analysis and treatment

After filling out the form, the data were grouped in Excel spreadsheet version 2010 and analyzed with simple frequency, presented descriptively and organized in this study in tables and graphs. Also, for this presentation the STROBE check list was used, according to the link: https://strobe-statement.org/fileadmin/Strobe/uploads/checklists/STROBE_checklist_v4_combined.pdf

Ethical Aspects

The study did not need to be submitted to a Research Ethics Committee because it is a documental study and it used public domain sources.

RESULTS

With the search done for the year 2020, 23 Google News pages containing 226 news items in total were available, and 44 news items were elected according to the inclusion criteria. In the year 2019, 26 news items were selected out of 230 found. In the year 2018, 19 publications were chosen from the total 244 news stories published. In 2017, about 250 news stories were released and 19 selected. In the year 2016, 14 news stories were selected

for this study out of the 280 posted, thus making a total of 122 news stories of kite cutting line accidents in the past five years.

Of the 122 news stories related to kite cutting line accidents, the news outlets that reported these accidents were as follows: G1; O Juruá em Tempo; Portal do Holanda; Estado de Minas Gerais; Istoé; Metropolitano; Midiamax; Poços Já; Correio do Estado; Emtempo; Ac24horas; Diário da Região; SoNoticias; DiárioOnLine; Topmidias News; Fala Brasil; Portal Beiradão; Visão Oeste; Extra; Tribuna Online; Jornal do Commercio; Campo Grande News; Ndmais; Diarinho; O Tempo; Portal da Cidade Paranavaí; GazetaWeb; Jornal Bragança; Portal da Cidade Umuarama; Eu, Rio; Mais Minas; TV Jornal; Folha de Valinhos; Jornal da Região; Hoje em Dia; Jornal Terceira Visão; MaisGoiás; Rondoniagora; Jornal Cruzeiro do Sul; Rádio Jornal Pernambuco; O Globo; Portal GazetaWeb; Diário do Vale; Tn Online; Dourados Agora; Folha Vitória; Cidade Verde; Nova Imprensa; Portal 6; JCNET; BHAZ; Mais PB.

It is found that in the last five years accidents were reported with 59 adults aged 19 to 59 years (48.4%), 12 aged six to 11 years (9.8%), nine children aged two to five years (7.4%), seven adolescents aged 12 to 18 years (5.7%), two were over 60 years (1.6%), one infant aged zero to one year (0.8%). It is worth mentioning that in 32 news reports (26.3%) the age of the injured people was not informed.

As far as the type of transportation used at the time of the accident is concerned, the majority of the victims were motorcyclists, as well as cyclists and pedestrians. There were 87 motorcyclists (71.3%), 19 cyclists (15.6%) and 16 pedestrians (13.1%) affected by the sharp lines.

Of the 29 children and adolescents between zero and 18 years old who were injured, 15 (51.7%) were cyclists, 12 (41.5%) were pedestrians, one (3.4%) was on the back of a motorcycle, and one was not informed (3.4%).

Kite cutting lines caused injuries in different parts of the body, the neck being the part of the body affected in 97 (79.5%) of the victims, the face in 13 (10.7%), the upper limbs in seven victims (5.7%), the lower limbs in four victims (3.3%), and in one case this information was not informed (0.8%).

As for the levels of severity, deep injuries were the most prevalent, with 59 cases (48.4%), followed by superficial cuts with 32 (26.2%). Twenty-four deaths (19.7%) were found, and seven (5.7%) were not reported.

As for the highest number of cases recorded according to the months, July was the month with 22 accidents (18.1%), followed by June with 20 (16.4%), May with 18 (14.7%), December with 17 (14%), January with 13 (10.7%), August with nine (7.4%), April with eight cases (6.5%), October with five (4%), March and February with four (3.3%), and finally September with two (1.6%). Only in November there were no reports of these accidents, which leads us to affirm that they can occur at any time of the year, regardless of the school vacation period.

Kite-flying requires weather conditions (rain, wind, frost) linked to the region of the country and the period of the year. In this sense, according to the regions, we have that the Southeast Region (Rio de Janeiro, São Paulo, Minas Gerais and Espírito Santo) was the one that concentrated the greatest variation of accidents over the years with 66 (54.1%) cases of reported accidents. São Paulo registered 40 cases (60.6%), Minas Gerais, 18 (27.3%), Rio de Janeiro five (7.5%), and Espírito Santo three cases (4.6%).

The Center-West region (Mato Grosso, Mato Grosso do Sul, Goiás) has the second largest distribution of accidents registered throughout the year, with 20 events (16.4%), involving eight months of the year. The Northeast Region (Maranhão, Piauí, Ceará, Rio Grande do Norte, Pernambuco, Paraíba, Sergipe, Alagoas and Bahia) and the North Region (Amazonas, Roraima, Amapá, Pará, Tocantins, Rondônia and Acre) presented a total of 14 registrations each (11.5%), however, the Northeast Region registered these accidents in eight months of the year and the North Region in five months. The South Region (Santa Catarina, Rio Grande do Sul, and Paraná) had the lowest number of records of these accidents during four months of the year, accounting for eight (6.5%).

DISCUSSION

In Brazil, external causes correspond to the highest average expense and cost of hospitalization, when compared to natural causes. Falls and transport accidents are, respectively, the first and second cause of hospitalization. In 2010, of the total hospitalizations funded by the Sistema Único de Saúde (SUS), 8.2% represented hospitalizations for injuries resulting from external causes, which cost 940.5 million reais.[6] Injuries caused by kite cutting lines are included in the group of external causes, due to the fact that they lead to trauma, result in physical limitations, death or disability, causing a financial burden to the state, in addition to the emotional, physical, social, and financial consequences, among others.

Although the accidents with kite cutting lines affect adults in larger numbers, it is noteworthy that 29 (23.7%) have affected children and adolescents (zero to 18 years old) and 1.6% the elderly (over 60 years old). Furthermore, they affect people who are not involved in playing with kites. As for the number of adult individuals, 42 were men (71.2%) and 17 (28.8%) were women. It can be said that adults are more susceptible to accidents with kite cutting lines since they move more frequently in the streets, compared to other age groups, as well as the means of transport used is mostly motorcycle.

Motorcyclists are more subject to serious accidents due to their lack of protection, especially in the neck region, and the speed used at the time of the accident, which implies functional sequelae, such as speech and vision dysfunctions, for example, as well as esthetic deformities that will require hospital care such as surgery, physical rehabilitation, and even emotional monitoring. The use of a helmet only protects the face.[7-8] A study that addresses the occupational risks of using a motorcycle as transportation for work indicates the predominance of males as the most affected by accidents.[9]

Despite the (in)visibility in the scientific literature on the subject, the seriousness of the situation is recognized by some government authorities, and expressed by some state laws[10-24] that prohibit the use of cutting lines. However, these laws are restricted to the states, and are punitive, not planning educational actions as proposals to sensitize the population, according to the line of care of the National Policy of Integral Attention to Child Health and the National Policy of Reduction of morbidity and mortality from accidents and violence.

At the federal level, there is a bill in progress in the federal senate, Bill No. 4391 of 2019, which criminalizes the use, storage, elaboration, distribution, preparation, possession, transport, manufacture, importation, supply, display for sale, and marketing of cerol or similar national or imported industrialized product that can be applied to the strings or lines used to handle the toys known as kites, kites, streaks, pandorgas or similar.[25]

It can be seen that all those injured in accidents with the kite cutting line are more exposed because they have no protection, such as that provided by the car. It is noteworthy that some motorcycles have an antenna that cuts the kite line, however, pedestrians and cyclists do not have any kind of protection to minimize and/or prevent such accidents. It should be added that the higher the speed, the greater the severity of the accident because the line in the environment is difficult to visualize, therefore, motorcyclists are more at risk first and cyclists second.

A study developed in Campinas identified 13 victims of accidents with the kite cutting line, 12 men and one woman. The victims who died were excluded, and it is noteworthy that eleven of these victims were on motorcycles, one was riding a horse, and the only child in the study was riding a bicycle. Four of these victims had deep neck injuries, leading to exposure of the trachea; in one case the victim received a five on the Glasgow Coma Scale, indicating severe (coma). The most serious injury was to the neck, as it involved structures such as the jugular vein, carotid arteries, larynx, and trachea. The severity of the injury was shown to be related to the depth of the injury, which was directly associated with the speed at the moment of impact with the sharp line.[7]

From this perspective, the neck is the most affected part of the body, and since motorcyclists are more affected, the number of deaths or even deep injuries is justified due to the type of transport and the speed used. It is important to highlight the significant relationship between kite-flying and traffic, considering that the dangerous nature of this game with the use of sharp substances in environments with large movements of people, such as avenues, highways, squares, for example, makes it a recreational activity with a high risk of causing avoidable accidents that can even cause serious injuries and even lead the individual to death.

Children learn by observing the behavior of adults and, during play, there is interaction with the environment and other people, which is essential for physical, psychological and social development, because from the behaviors witnessed is that they incorporate learning for themselves. This is a relevant aspect in the game of flying a kite, because in this game, there is interaction between generations[1] and from this is the continuity of the use of cutting lines, since their use is not associated with a dangerous situation but as an integral part of the culturally constructed kite game.

In 2014, it was identified that in 24 hours, 48 lives were lost and among them, several innocent bystanders. Among the accidents found in hospital care ranged from minor injuries, to severe burns from electric shock and head trauma.[2]

The injuries related to kite flying are preventable and it is recommended to choose a safe place with an open area, away from telephone lines and electricity cables, roads, cars, people, and animals for this recreational practice.[7] Thus, it is important to emphasize that the problem is not in the game of "flying a kite" itself, but in the dangerous aspects that involve it and, therefore, in order to reduce the negative consequences of this practice, it is necessary that public measures be adopted, especially in health promotion.

According to age-specific cognitive characteristics, children are more susceptible to accidents, due to the fact that they are small, not being aware of the consequences of the dangers present in situations, not having the perception between cause and effect, as well as being unable to understand the danger to themselves or to others, due to the magical and egocentric thinking characteristic of their age. It is worth mentioning school-age children, who do not have the ability to fully understand the causal relationships because they are in a process of cognitive transition.26 Adolescents are characterized by abstract thinking, which sometimes causes them to lose their sense of reality, resulting in a feeling of non-vulnerability.[27]

It is noteworthy that playing is recognized as a child's right, and the school environment is conducive to the child's development by stimulating the various ways of playing collectively; however, it is in the family environment, through parental education, that children learn essential values such as respect, affection, honesty, among others.[28]

To this end, educational measures are paramount to educators, community leaders, parents and families, who play a key role in educating children about the dangers involved in "flying a kite". The involvement of the community is essential for adults to be aware that they are responsible for the occurrence of accidents and deaths caused by playing with kite cutting lines, since the child, besides not having the psychological maturity to understand the potential risks that the game offers, also cannot respond criminally for the act.[2,27]

However, public managers should also participate by offering appropriate conditions for safe and healthy playing, with the creation of appropriate public spaces, away from highways, and the effective participation of society in the intensification of surveillance, ensuring compliance with the laws regarding the use of kite string.

There is a naturalization of habits and a devaluation of preventive actions and health promotion by managers, as well as a lack of public investment, which hinders or prevents the recog-

nition of the population with regard to care measures to avoid accidents and violence.[29]

The period of the year with the highest incidence of these accidents occurred in the months of June and July, with 80% of the victims,1 contrary to the present study, which indicates that there is not a specific month for the occurrence of accidents with the kite cutting line.

Another relevant factor is associated with the records and their importance in the articulation of care networks, whether on the roads or in health units, in order to give greater visibility to accidents with kite cutting lines, besides being a source of research. The fact is that most of the people who are injured in these accidents die, many of them do not reach the hospitals for treatment and, therefore, this data is lost.

This study was limited by the linguistic diversity existing in Brazil, since the terms referring to the kite game, such as "kite" and "cerol", for example, have different names depending on the region of the country, which can result in fewer records of accidents. In addition, not all accidents of this type are reported by the media, and those that happen in large centers, such as those in the Southeast, are more widely reported.

Thus, the study points to the need to give visibility to accidents caused by the use of kite cutting lines, leading to critical reflections about the use of this material in a child's game. Nurses can act in health educational actions on the reduction of accidents caused by playing with kites both in schools and in health services of the various levels of care of the Sistema Único de Saúde(SUS). Therefore, the study points to the need for further studies.

CONCLUSION

The incidence of accidents caused by kite cutting lines affected more males, aged between 19 and 59 years, using a motorcycle, which had deep cuts mostly in the neck and face. However, a quarter of the sample under 18 years old were affected. The southeastern region had the highest number of recorded cases, and accidents were reported in all months of the year except November, which is not related to the school vacations.

We conclude the need for a more efficient registration system, articulated and that is constantly updated in order for the data to be better quantified in further analysis, because it is assumed that the occurrence rates of accidents resulting from kite cutting lines are higher than those presented in this study, and also convert into national legislation the prohibition of the use of cutting lines in order to minimize hospital expenses or even the condition of disability and death

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14. Mato Grosso (Estado). Lei n. 8.845, de 26 de março de 2008. Proíbe, no âmbito do Estado de Mato Grosso, a utilização de cerol ou qualquer outro tipo de material cortante nas linhas de pipas ou similares. Diário Oficial do Estado Do Mato Grosso. 26 nov 2013; p.3 Disponível em: https://www.iomat.mt.gov.br/portal/visualizacoes/pdf/1697/#/p:3/e:1697.

15. Mato Grosso Do Sul (Estado). Lei n. 3.436, de 19 de novembro de 2007. Proíbe, no âmbito do Estado de Mato Grosso do Sul, a utilização de cerol ou qualquer outro tipo de material cortante nas linhas de pipas ou similares e dá outras providências. Diário Oficial n. 7095 de 20 de novembro de 2007. Disponível em: https://leisestaduais.com.br/ms/lei-ordinaria-n-3436-2007-mato-grosso-do-sul-proibe-no-ambito-do-estado-de-mato-grosso-do-sul-a-.

16. Minas Gerais (Estado). Lei nº 23515, de 20 de dezembro de 2019. Veda a comercialização e o uso de linha cortante em pipas, papagaios e similares. Diário Oficial do Estado de Minas Gerais. 21 dez 2019; p.4. Disponível em: https://www.legisweb.com.br/legislacao/?id=387786.

17. Paraíba (Estado). Lei n. 10186 de 25 de novembro de 2013. Proíbe o uso de cerol ou qualquer outro material cortante nas linhas de pipas, papagaios, pandorgas e artefatos semelhantes para uso recreativo ou publicitário nas áreas públicas ou privadas no âmbito do Estado da Paraíba e dá outras providências. Diário Oficial do Estado da Paraíba. 26 nov 2013; p.6. Disponível em: https://www.legisweb.com.br/legislacao/?id=262112.

18. Paraná (Estado). Lei n. 20264 de 24 de julho de 2020. Dispõe sobre a proibição da feitura informal e a fabricação comercial, a comercialização, a compra, o porte e a posse e o uso do cerol (vidro moído e cola); proíbe também a venda da linha encerada com quartzo moído, algodão e óxido de alumínio, conhecida como „linha chilena“, ou de qualquer produto similar utilizado no ato de empinar pipas, que contenham elementos cortantes“, e dá outras providências. Diário Oficial do Estado do Paraná. 24 de jul 2020; p.3. Disponível em: https://www.legisweb.com.br/legislacao/?id=399151.

19. Pernambuco (Estado). Lei n. 16.610, de 9 de julho de 2019. Altera a Lei nº 11.931, de 3 de janeiro de 2001, que proíbe a utilização do cerol em linha ou cordão para pipas empinadas no território do Estado de Pernambuco, originada de Lei de autoria do Deputado Manoel Ferreira, a fim de acrescentar a proibição de uso de linhas cortantes. Diário Oficial do Estado de Pernambuco. 10 jul2019; p.4c.1. Disponível em: http://legis.alepe.pe.gov.br/texto.aspx?id=46381.

20. Rio de Janeiro (Estado). Lei n. 8478, de 18 de julho de 2019. Proíbe a comercialização, o uso, o porte e a posse da substância constituída de vidro moído e cola (cerol), além da linha encerada com quartzo moído, algodão e óxido de alumínio (linha chilena), e de qualquer produto utilizado na prática de soltar pipas que possua elementos cortantes, e dá outras providências. Diário Oficial do Estado do Rio de Janeiro. 18 jul 2019; p.1. Disponível em: https://gov-rj.jusbrasil.com.br/legislacao/737167750/lei-8478-19-rio-de-janeiro-rj.

21. Rondônia (Estado). Lei n. 4.726, de 6 de abril de 2020. Proíbe a comercialização, o uso, o porte e a posse da substância constituída de vidro moído e cola (cerol), além da linha encerada com quartzo moído, algodão e óxido de alumínio (linha chilena), e de qualquer produto utilizado na prática de soltar pipas que possua elementos cortantes, e dá outras providências. Diário Oficial do Estado de Rondônia. 07 abr 2020; p.2. Disponível em: https://sapl.al.ro.leg.br/norma/9302.

22. Santa Catarina (Estado). Lei n. 17.304 de 1º de novembro de 2017. Altera o caput do art. 2º da Lei nº 11.698, de 2001, que "Proíbe a utilização de pipas ou similares equipadas com instrumentos cortantes e com linhas preparadas à base de produtos cortantes e adota outras providências", para estabelecer novo parâmetro de atualização da multa imposta ao infrator. Diário Oficial do Estado de Santa Catarina. 6 nov 2017. Disponível em: http://leis.alesc.sc.gov.br/html/2017/17304_2017_lei.html.

23. São Paulo (Estado). Lei n.17.201 de 04 de novembro de 2019. Revoga a Lei nº 10.017, de 1º de julho de 1998, que proíbe a fabricação e a comercialização de mistura de cola e vidro moído, usada nas linhas para pipas, e a Lei nº 12.192, de 6 de janeiro de 2006, que proíbe o uso de cerol ou de qualquer produto semelhante que possa ser aplicado em linhas de papagaios ou pipas, e dá nova disciplina à matéria tratada nesses diplomas. Diário Oficial do Estado de São Paulo. 5 nov; p.1. Disponível em: https://governo-sp.jusbrasil.com.br/legislacao/777099220/lei-17201-19-sao-paulo-sp.

24. Tocantins (Estado). Lei n. 3707 de 28 de julho de 2020. Proíbe a fabricação, a comercialização, o armazenamento, o transporte, a distribuição e o uso de cerol, linha chilena ou produto industrializado nacional ou importado semelhante que possa ser aplicado nos fios ou linhas utilizados para manusear brinquedos conhecidos como „pipas ou papagaios", no âmbito do Estado do Tocantins e, adota outras providências. Diário Oficial do Estado de Tocantins. 28 jul 2020; p.1. Disponível em: https://www.legisweb.com.br/legislacao/?id=399163.

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