The importance of injuries caused by domestic accidents in times of covid-19

A importância das injúrias por acidentes domésticos em tempos de COVID-19

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Abstract

Domestic accidents and the injuries resulting from them have increased in number and severity during quarantine, with the perception of specialists that they represent a greater threat to children's health and well-being than covid-19 itself. The general principles and specific tips for pediatricians to educate parents to reduce the likelihood and occurrence of trauma are shown in Table 1. Every pediatrician has to be attentive to publications that deal with the increase of unintended traumatic events during the period of social detachment. In several countries, children who need care for serious situations are not being taken to the emergency services or are subject to delays in doing so in the occurrence of trauma. Every pediatrician, in addition to providing guidance on trauma protection measures, has the responsibility to guide families and policy makers on current debates about planning to reopen schools, in which specialists tend to perceive that keeping children in home isolation outweighs the risks of covid-19.

Resumo

Os acidentes domésticos e as injúrias deles decorrentes têm aumentado em número e gravidade durante a quarentena, com uma percepção de especialistas de que representam uma ameaça maior à saúde e bem-estar das crianças do que a própria COVID-19. Os princípios gerais e dicas específicas para que os pediatras orientem os pais para reduzir a probabilidade e ocorrência de traumas estão na Tabela 1. Todo pediatra tem que estar atento às publicações que tratam do aumento de eventos traumáticos não intencionais durante o período de distanciamento social. Em vários países está ocorrendo que crianças que precisam de atendimento por situações graves não estão sendo levadas aos serviços de emergência ou com muito atraso em relação à ocorrência do trauma. Todo pediatra, além da orientação sobre as medidas de proteção aos traumatismos, tem a responsabilidade de orientar as famílias e os tomadores de decisões políticas acerca dos debates atuais sobre o planejamento da reabertura das escolas, nos quais os especialistas tendem à percepção de que os prejuízos da manutenção das crianças em isolamento domiciliar sobrepujam os riscos da COVID-19.

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In these times of pandemic, we live in a totally new and unusual situation, with schools, companies and public places closed; and parents striving to manage the health care of children and young people in this new “normal” daily life. With totally changed routines and, many times, stumbling over each other in their living spaces, which is now also an improvised place to work, play, learn and exercise, as families try to balance work, meals, education, the well-being and protection of children, it is expected that, in addition to greater stress, failures in supervision will occur.

Domestic accidents and the injuries resulting from them have increased in number and severity during quarantine, with the perception of specialists that they represent a greater threat to children’s health and well-being than covid-19.

What can parents do to reduce the likelihood and occurrence of trauma, especially in this exceptional context in which children are figuratively and literally climbing the walls? Table 1 shows an overview of general principles and specific tips that have appeared in various publications that can certainly help.

Every pediatrician has to be aware of some publications that deal with the increase of unintended traumatic events during the period of social isolation: according to an analysis made by the American Food and Drug Administration (FDA) of the data provided by the American Association of Poison Control Centers (AAPCC) and the National Poison Data System (NPDS), phone calls related to hand sanitizer poisoning cases increased by 79%, compared to March 2019 and 2020. Most of these calls were due to non-intentional exposures in children 5 years and younger, and the ingestion of only a small amount of hand sanitizer can be potentially lethal in a young child.

Between January and March 2020, poisoning centers received 45,550 exposure calls related to cleaning products and disinfectants, representing an overall increase of 20.4% and 16.4% over the same period in 2019 and 2018, respectively; and there appears to be a clear temporal relationship with the increase in the use of these products, in the exhibitions and in the cleaning efforts of the isolation period of the covid-19.

A study by the Children’s Hospital of Philadelphia, published in the Journal of Pediatric Orthopedics, comparing acute fractures that occurred during the covid-19 pandemic (March 15 to April 15, 2020) with those from a pre-pandemic period (same window) in 2018 and 2019 at the same institution, showed an increase in the number of injuries that occurred at

**Table 1. Recommendations for home safety in times of the covid-19 pandemic.**

| Routine | The family should try to stick to a routine with a defined schedule for everyone, because, by breaking it, exposing children to new situations increases the risk of accidents and injuries. This new routine needs to be clear and easy for everyone to understand that there are rules and expectations while spending the whole day at home, which also contributes to everyone being less stressed and restless. It is even suggested that a schedule be created, which will be reviewed daily, with defined times for waking up, eating, taking classes, taking lessons, practicing physical activities, resting, screen time and going to bed (preferably in the same time as before). Experience shows that everyone gets used to the routine and the consistency of knowing when and what to do will lead to the relief of unwanted stressors and will tend to provide quality family time. |
| Safe Environment | Create a safe home environment, since neither parent, nor both together can supervise their children 24 hours a day, 7 days a week. It is essential to allocate a specific time to do a safety inspection in the house, check if there are flaws in the safety strategies, search and correct the dangerous places, install equipment, trying to minimize the exposure to potential risks. |
| Play safe | Find safe ways to entertain the children, without making decisions that could compromise safety (example: trampoline near window or balcony without protection; plastic pool left with water for young children). |
| Organized physical activity | Physical activity for all: parents, with creativity, should develop leisure activities at home, support and encourage their children to play and be active in innovative and safe ways. Suggestions: active participation by everyone in the activities, create new leisure hobbies, use of online health applications and/or physical activities. According to the Movement Behavior Guidelines of the World Health Organization (WHO), children and young people (from 5 to 17 years old) should practice 60 minutes daily of moderate to vigorous physical activity, whenever possible outdoors. Regular physical activities contribute to better physical and mental well-being, maintain a healthy weight and prevent dangerous habits to predominate (such as caloric snacks and a lot of screen time). |
| Mind the risks | Pay special attention to the potential dangers of the house and be aware of the main risks: from falls, suffocation, injuries, burns, drowning, and intoxication. |
| Safety equipment | Think of additional resources to protect everyone: railings (or safety gates) up and down the stairs, at the entrance to the kitchen and laundry; fixing furniture (such as TVs); curled and tied curtain threads and strings; window and outlet protections; tall, locked cabinets for all dangerous products; locks on the doors (with spare key). |
| Safe sleep | Safe sleeping choices: the baby in the crib (free of padded protections), older children in bed with protections, no one in their parents’ bed. |
| Organized time | Give yourself time to relax and rest, take care of your children, burn energy alone or with your family. |
home (57.8 versus 32.5%), or with bicycles (18.3 versus 8.2%), while there was a decrease in related fractures caused by sports (7.2 versus 26%) and playgrounds (5.2 versus 9%)\(^{10}\).

In addition, what about secondary care for these injuries - that is, those that could not have been prevented - in such complicated times?

The consensus recommendation is that if the child gets hurt and it is not a life-threatening injury, the first option is to contact the pediatrician or another healthcare professional (by phone, video conference or face-to-face care at the doctor’s office), in search of adequate technical guidance, as injuries can often be treated at home. If such contacts are not possible, it is worth calling an emergency telephone service (already available in many communities; families are advised to inquire in advance), so that professionals can help determine if a visit to the emergency room will be necessary or not\(^{3,13}\).

In several countries there is already a concern that children who need care for situations that are often serious are not being taken to the emergency services or are being taken too late in relation to the occurrence of the trauma. Statistics from Italian hospitals show a substantial decrease in pediatric emergency visits, between 73% and 78%, compared to the same period in 2018 and 2019\(^{14}\).

Emergency room visits for non-covid emergencies fell 42% during the pandemic, compared to the same period in 2019, as reported by the Centers for Disease Control and Prevention (CDC), with the sharpest reductions occurring among children younger than 14 years of age. In 2019, 12% of all visits to emergency services occurred in children aged 10 years and under, compared with 6% during the same period this year, while experiencing the pandemic\(^{15}\).

In the United Kingdom, pediatricians are concerned about the decreasing demand for emergency services in situations of children with severe medical conditions and unintentional injuries that should have been carried out as soon as possible, estimating that this causes deaths and potentially preventable diseases in the short and long term, a form of collateral damage caused by social distancing practices in the Covid-19\(^{16}\) pandemic.

At this time, there is still no consistent data from emergency services showing an increase in the incidence of domestic accidents, partly because many parents must be avoiding going to the emergency room for fear of covid-19, trying initial treatment, which may not be effective and even leave sequelae - or due to delays in registering and publishing; but that does not mean that injuries from accidents at home are not happening.

Finally, it should be noted that every pediatrician, in addition to providing guidance on the trauma protection measures already enumerated, has the responsibility to guide families and policy makers on the current debates about planning the reopening of schools, in which specialists tend to perceive that the damage caused by keeping children in isolation at home outweighs the risks of covid-19\(^{17-20}\).

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