Child and adolescent physical abuse – a proposal for classifying its severity

Violência contra crianças e adolescentes – proposta de classificação dos níveis de gravidade

Violencia contra niños y adolescentes – propuesta de clasificación de los niveles de gravedad

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ABSTRACT

Objective: To report different clinical presentation of child physical abuse and propose a method for classifying its severity as applied to a program that provides assistance for children and adolescents under risk in Curitiba, in Southern Brazil.

Methods: The study comprised four phases: involvement and assessment of the implementation of the network that provides assistance for children and adolescents under risk; development of a method to classify abuse according to its severity level in childhood and adolescence; training health professionals to identify beforehand cases of abuse and how to apply the proposed classification method and to notify the authorities; analysis and interpretation of collected data.

Results: 1,537 cases were notified in 2003 and 1,972 in 2004; 93% of them were considered as domestic abuse. In those cases of domestic abuse, in 2003 and 2004 respectively, negligence was reported in 40.7 and 61.7%; physical violence occurred in 35.1 and 26.0%, sexual abuse in 17.6 and 7.7% sexual abuse, and psychological stress in 6.6 and 4.6%. Gender was not significantly different among victimized subjects, but the main age interval among victims was five to nine years old. In 2003, severity was classified as mild in 8.2%, moderate in 41.8%, and severe 40%. In the following year, 33.9% of the cases were identified as mild, 35.4% as moderate, and 30.7% as severe.

Conclusions: This study shows the features and interfaces of abuse against children and adolescents, as well as the implementation of a new method for severity classification, which allowed to establish criteria for emergency care and to create flowcharts and individualized treatment protocols according with these levels.

Key-words: violence; child; adolescent; domestic violence; child abuse; epidemiology.

RESUMO

Objetivo: Descrever as formas de apresentação da violência e método de classificação em níveis de gravidade aplicado no Programa Rede de Proteção das Crianças e Adolescentes em Situação de Risco para Violência da cidade de Curitiba.

Métodos: O presente estudo constituiu-se de quatro fases: participação e acompanhamento da implantação do programa Rede de Proteção; desenvolvimento de método para classificar os níveis de gravidade das situações de violência contra infância e adolescência; participação na capacitação de profissionais da rede pública para identificação das situações de violência, aplicação do método de classificação e notificação; análise e interpretação dos dados das notificações de violência gerados pelo Programa.

Resultados: No Programa Rede de Proteção de Curitiba foram notificados 1.537 casos de violência contra crianças e adolescentes em 2003 e 1.974 em 2004, sendo 93% casos de violência doméstica. Dos casos de violência doméstica, em 2003 e 2004, respectivamente, 40,7 e 61,7% foram situações de negligência, 35,2 e 26%, de violência física; 17,5 e 8,8%, sexual e 6,6 e 3,5%, psicológica isolada. Não houve diferença significativa entre sexo da vítima, com predomínio na faixa etária de cinco a nove anos. Em 2003, os casos moderados corresponderam a 41,8%, os graves, a 40% e os leves, a 18,2%. Em 2004, 35,4% foram casos moderados, 33,9%, leves e 30,7%, graves.

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Conclusões: Este estudo apresenta aspectos e interfaces da violência contra crianças e adolescentes e a aplicação de novo método de classificação de seus níveis de gravidade, o que tornou possível estabelecer critérios de urgência e emergência, além da estruturação de fluxogramas e protocolos de atendimento de acordo com esses níveis.

Palavras-chave: violência; criança; adolescente; violência doméstica; maus-tratos infantis; epidemiologia.

RESUMEN

Objetivo: Describir las formas de presentación de la violencia y el método de clasificación en niveles de gravedad aplicado en el Programa Red de Protección de los Niños y Adolescentes en Situación de Riesgo para Violencia de la ciudad de Curitiba (Brasil).

Métodos: El presente estudio se constituye en cuatro etapas: Participación y seguimiento de la implantación del programa Red de Protección; Desarrollo de método para clasificar los niveles de gravedad de las situaciones de violencia contra infancia y adolescencia; Participación en la capacitación de profesionales de la red pública para identificación de las situaciones de violencia, aplicación del método de clasificación y notificación; Análisis e interpretación de los datos de las notificaciones de violencia generadas por el programa.

Resultados: En el Programa Red de Protección de Curitiba, se notificaron 1537 casos de violencia contra niños y adolescentes en 2003 y 1972 en 2004, siendo en el 93% casos de violencia doméstica. De los casos de violencia doméstica, en 2003 y 2004 respectivamente, el 40,7% y el 61,7% fueron situaciones de negligencia, el 35,1% y el 26% de violencia física; el 17,6% y el 7,7% sexual y el 6,6% y el 4,6% psicológica aislada. No hubo diferencia significativa entre el sexo de la víctima con predominio en la franja de edad entre 5 y 9 años. En 2003, los casos moderados correspondieron a 41,8%, los graves a 8,2%. En 2004, 35,4% fueron casos moderados, el 33,9% livianos y el 30,7% graves.

Conclusiones: Este estudio presenta aspectos e interfaces de la violencia contra niños y adolescentes y la aplicación de nuevo método de clasificación de sus niveles de gravedad, lo que hizo posible establecer criterios de urgencia y emergencia, además de la estructuración de diagramas de flujo y protocolos de atención en conformidad con esos niveles.

Palabras clave: violencia; niños; adolescentes; violencia doméstica; malos tratos infantiles; epidemiología.

Introduction

Violence against children and adolescents can be defined as any action or omission committed by a person who is physically and psychologically more mature than the victim and which leads to them suffering any type of pain. Up to the age of 18, the most common types of violence are classified as domestic, interfamilial or maltreatment, and are those actions or omissions that are perpetrated by an adult or an adolescent who is physically and psychologically more mature and who is in the role of carer or guardian with relation to the victim, whether because they are the mother or father or another relative or because of dependency, cohabitation, emotional bonds or relationships of trust. Habitually such violence takes place within the victim’s home and the most common aggressors are parents or those fulfilling a parenting role, followed by other members of the social nucleus of the child’s residence\(^\text{2}\), and can present in the most varied and bizarre forms and at many different levels of severity\(^\text{2}\).

In 1990, Brazilian children and adolescents gained the protection of specific legislation against violence during childhood and adolescence (the Estatuto da Criança e do Adolescente), which made reporting such events obligatory even when they are only suspected (article 245)\(^\text{3}\). The articles of the Brazilian penal code that define physical injuries and maltreatment and stipulate the criteria for diagnosing them and classifying them at different levels of severity, such as articles 129 and 136, were written in 1940 and do not take any account of psychological harm and pay scant attention to cases of negligence\(^\text{4,5}\). In 2009, law number 12015 was passed amending the existing penal code with respect to sexual crimes, which had previously been defined as “Crimes against Customs” and were re-designated as “Crimes against Sexual Dignity”. Article 217A introduced the concept of “Rape of Vulnerable Persons”, which defines any sexual act against a person less than 14 years old as a crime\(^\text{6,7}\).

Notwithstanding, the number of reports of violence against children and adolescents is still very low in Brazil and one cannot even consider an epidemiology of such cases, even though in 2001 the Brazilian Ministry of Health defined the issue as not merely a social problem but, primarily, as a public health problem and added it to the list of obligatory notifiable events nationally (Directive number 737, the national policy for the reduction of morbidity and mortality from accidents and violence – Política Nacional de Redução de Morbimortalidade por Acidentes e Violência\(^\text{8}\)). However, the numbers of reports and notifications have remained infinitely below what is believed to be the true level\(^\text{9}\).

In 1998, an anti-violence project was begun in the city of Curitiba that concentrated the efforts of several government
departments and programs, nongovernmental organizations dedicated to childhood and adolescence and the Paraná state pediatrics society. A unified and standardized notification protocol was created and work begun to train professionals who work with children and adolescents in prevention, diagnosis, assessment of the degree of severity of cases, notification and monitoring of situations of risk of violence. Since 2002, these notifications have been stored and analyzed in a database maintained by the Curitiba Municipal Health Department (Secretaria Municipal de Saúde) and a program called the Network for the Protection of Children and Adolescents in Situations of Risk of Violence was set up.

This study describes the cases of violence against children and adolescents in the city of Curitiba, on the basis of records of notifications to the Network for the Protection of Children and Adolescents in Situations of Risk of Violence, and presents the development of a system that classifies these events according to degrees of severity and its use to define a flow chart illustrating the care algorithm and indicating when emergency protection mechanisms should be triggered.

Method

The creation of a wide-ranging program to combat violence against children and adolescents in Curitiba has made it possible to collect a large amount of data on its forms of presentation, nature and frequency, by age and sex. Analysis of the data from the program’s first year, 2001, made it clear that it was necessary to create a care flow diagram and to define which situations were of greater and lesser severity.

Thus, the project described here is consists of several different stages and started once the Network for the Protection of Children and Adolescents in Situations of Risk of Violence had been created in the city of Curitiba. The stages were as follows: planning, design and creation of the notification protocol (1998-2000); training (around ten thousand) public sector professionals working in healthcare, education, social services, the legal system and security services in identification and obligatory notification (2000-2002); monitoring of cases and triggering protection mechanisms (2003 to date).

The study described here therefore comprised four phases: 1) Participation in and monitoring of implementation of the program; 2) Development of a method for classifying the degree of severity of situations of violence against children and adolescents, during the program design stage; 3) Participation in training public sector professionals to identify situations of violence, to apply the classification method and to notify cases; 4) Analysis of data from notification reports of violence against children and adolescents relating to the years 2003 and 2004, stored in the Municipal Health Department’s database and originating from municipal public childcare institutions, hospitals and child protection boards (Conselhos Tutelares).

All notified cases of violence against children and adolescents for 2003 (1,537) and 2004 (1,974) were included and the sample size was the total number of such notifications. For analyses involving degree of severity, 256 notifications for 2003 and 244 for 2004 were excluded because this information was missing.

The method developed for classifying situations of violence against children and adolescents by degree of severity was based on four determinants of the morbidity involved in these situations, chosen on the basis of the greatest frequency in the 2001 notifications: the general condition of the victim, the make-up of the family and its attitude to the violence detected, the type and characteristics of aggression and the profile of the aggressor (Table 1). The risk evaluated for each factor is scored according to specific indicators and the case is classified as follows:

- No Evidence of Violence (0 to 3 points): the signs and symptoms presented by the child are not compatible with the characteristics of intentional physical injury, psychological violence, sexual violence or negligence; there is no aggression or aggressor identified and there are well-established bonds of respect, confidence and affection between the child and its guardians.
- Mild Case (4 to 5 points): there are signs or symptoms compatible with a single episode of physical or psychological aggression, or negligence is detected, with no consequences for the physical or mental health of the victim, and the victim’s guardians are willing to review their aggressive behavior.
- Moderate Case (6 to 8 points): signs or symptoms that demonstrate physical and/or psychological violence and/or negligence that could lead to physical or emotional harm and require outpatients-level treatment and specialist follow-up of both victim and aggressors, or which are mild, but repeated.

Table 1 - Method for classifying degrees of severity of violence against children and adolescents

<table>
<thead>
<tr>
<th>Victim</th>
<th>Aggression</th>
<th>Aggressor</th>
<th>Family</th>
<th>Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>No violence</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0-3</td>
</tr>
<tr>
<td>Mild</td>
<td>1</td>
<td>1</td>
<td>1-2</td>
<td>1-2</td>
</tr>
<tr>
<td>Moderate</td>
<td>1-2</td>
<td>1-2</td>
<td>2</td>
<td>1-2-3</td>
</tr>
<tr>
<td>Severe</td>
<td>2-3</td>
<td>2-3</td>
<td>2-3</td>
<td>1-2-3</td>
</tr>
<tr>
<td>Risk of death</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>
Results

In 2003 and 2004, there were 1,537 and 1,974 notifications respectively, submitted by the 643 units that were responsible for caring for children and adolescents within healthcare, education and social services and took part in Curitiba’s protection network. The vast majority of violence reported in 2003 was Domestic or Abuse, which accounted for 92.6% of notifications, and the remainder (7.4%) were related to extra-familial violence. The proportions were similar in 2004, with 92.9% of cases being domestic violence and 7.1% extra-familial violence.

With regard to the victims, incidence was greatest in the 5 to 9 years age group in both years studied. The next most affected age group was 0 to 4 years, of which 10.9% of the overall total were infants less than 1 year old, including 64 children aged less than 1 month. Around one quarter of the cases involved children aged 10 to 14 years (Table 2).

The majority of notifications of aggression were the result of negligence or omission (carelessness), with a significantly higher incidence than other types of violence \( p<0.01 \). Physical violence was significantly more common than sexual and psychological violence \( p<0.01 \). Following these types of violence in order of incidence were sexual violence and psychological violence in their isolated forms (Table 2).

There was no significant difference in the global incidence of violence related to the sex of the victim. However, males were more often the victims of both negligence and physical violence during both years analyzed. Among females, more than three quarters of cases were reports of sexual violence (Table 3).

Mothers were most frequently the aggressor, being responsible for 44.6% of cases in 2003 and 59.5% in 2004. Fathers were in second place with 25.6% of the notifications in 2003 and 23.4% in 2004. Self harm was the cause of 13 notifications in 2003 and 11 in 2004. Specifically with relation to sexual violence cases,
stepfathers or mothers’ partners were in first place, followed by fathers, grandfathers, uncles and others with whom the victim had a relationship of dependency, affection or cohabitation. In 5.3% of the cases of sexual abuse, the aggressor was someone known to the victim, but with no direct connection in terms of household or dependency and in 3.3% of the notifications the aggressor was totally unknown to their victim.

Analysis of the 1,281 notifications from 2003 that contained information on degree of severity showed that moderate cases were the most common, followed by severe and, at a lower level, mild cases (Table 3). There was no significant difference in the 2003 data between the frequencies of the severe and moderate cases, but the number of mild cases was very much lower ($p<0.001$). In 2004, moderate cases had the greatest incidence among the 1,730 notifications, followed by mild and severe and there was no significant difference between mild and moderate cases. The frequency of moderate cases was significantly higher than the frequency of severe cases ($p=0.001$) (Table 4).

When the degree of severity was analyzed in terms of type of violence, the majority of the cases of negligence and physical violence were classified as mild or moderate ($p<0.001$), while cases of sexual violence were predominantly severe ($p<0.001$). Moderate severity predominated among the cases of psychological violence, ($p=0.03$).

**Discussion**

This study was based on data from official notifications of situations of violence against children and adolescents in the city of Curitiba during 2003 and 2004 and the results show that the most common situations of violence against children and adolescents were domestic, which constitutes the crime of maltreatment, and the principal aggressors were the victims’ parents, or people fulfilling that role. This finding is common to many international studies, such as one conducted by Kaplan & Sadock, who found that parents were responsible for 75% of cases of violence against their children, followed by other relatives and carers$^{(10)}$.

According to Unicef reports, the WHO estimates that in 2002 around 53000 children died worldwide as a result of homicide$^{(11)}$ and that 20% of the world’s women and 10% of the world’s men suffered some form of violence when children$^{(12)}$.

With regard to age group, the greatest frequency was from 5 to 9 years, followed by 0 to 4 years and what is most striking is that a quarter of these cases involved infants less than 1 year old and that their mothers were most often the aggressors.

According to a global report on child employment (OIT 2002), 245 million people less than 18 years old work worldwide. More than 186 million of them are 5 to 14 years old and 59 million are 15 to 17 years old. Approximately 170 million are working in dangerous conditions. Around 2 million children and adolescents worldwide are being exploited commercially for sexual and pornographic purposes$^{(13)}$.

It is estimated that around 500,000 children aged 9 to 17 years are being sexually exploited in Brazil$^{(14)}$.

In countries that have had systems of obligatory notification for more than 3 decades, as is the case with the US Department of Health and Human Services, physical abuse is most prevalent among children under the age of 5 years (32%), but there are also high incidence rates in the 5 to 9 (27%) and 10 to 14 (27%) age groups$^{(15)}$. Data from the Organization for Economic Co-operation and Development (OECD) indicate that within the subset of people less than 18 years old, it is babies less than 1 year old who are at second-greatest risk of death by homicide. The risk of death is around three times greater for children less than 1 year old than for those aged 1 to 4; and, the younger the child, the greater the likelihood that death will be caused by a close relative$^{(16)}$.

It should be pointed out that violence, especially when committed by parents or guardians, has a doubly harmful effect in childhood and adolescence, both because of the act itself, which will be recorded in the victim’s memory, irrespective of their age when it occurs, and also because of the negative effect on development. Traumas that are beyond the child or adolescent’s capacity to understand can have both immediate and later effects, with repercussions for their primary mode of thinking and acting and also for their capacity to face other difficult or stressful situations for the rest of their lives$^{(17)}$.

The younger the victim and the closer their relationship with the aggressor, the worse the possible sequelae, bearing in mind that children less than 3 years old tend not to produce a verbal memory of past traumas or abuses, making diagnosis difficult. Notwithstanding, their experiences may

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**Table 4 - Numbers and percentage of notifications, by degree of severity**

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Mild</td>
<td>233</td>
<td>18.2</td>
</tr>
<tr>
<td>Moderate</td>
<td>535</td>
<td>41.8</td>
</tr>
<tr>
<td>Severe</td>
<td>513</td>
<td>40.0</td>
</tr>
<tr>
<td>Total</td>
<td>1281</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Adapted from the Curitiba CE/SMS Protection Network Database, 2003/2004
Chi-square for linear tendencies: $p=0.60$
be reproduced through play, drawing or fantasy\(^{(18)}\). Additionally, adults who were physically abused when children have a greater likelihood of abusing their children than those who did not suffer this type of violence\(^{(19)}\).

The type of violence most notified to the Protection Network was negligence, followed by physical, sexual and psychological violence. The last of these diagnoses is an evolution of the interpretation of the many different presentations of violence against children and adolescents.

The overall frequency of notifications was similar for males and females, but they were differentiated in terms of type of violence, with male victims predominantly suffering negligence and physical violence and a majority of female victims suffering sexual abuse.

With regard to severity, in 2003 the largest category of cases was moderate, followed by severe and, at lower percentages, mild cases. In 2004, the predominance of moderate cases was maintained, with an increased number of mild cases, followed by severe notifications. Application of this method of classifying severity made it possible to define criteria for urgent and emergency cases, in addition to follow-up protocols based on the general risk of the situation of violence. It also made it possible to construct flow diagrams and define the complexity of treatment and the legal and social protection mechanisms to be used by the Protection Network. Further studies are underway in order to validate this method so its use as a method of triage when caring for children and adolescents in situations of risk of violence can be expanded.

It is important to recognize that the data extracted from records of obligatory notifications of situations of risk of violence to children and adolescents only refer to the subset of victims who were diagnosed as victims of violence at public healthcare, education and social services. It must be remembered that children and adolescents who do not access this public sector network may be going undiagnosed and, therefore, this study presents one epidemiological profile of the violence in this age group and cannot determine general indices of prevalence or incidence. Notwithstanding, the work described here throws light on the many different presentations of violence against children and adolescents, providing evidence of its occurrence in all age groups without regard for sex. The study also presents the possibility of using a method for classifying the degrees of severity of this violence, with the intention of providing a basis for the creation of flow diagrams and care protocols based on the needs of each case.

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**References**


