Physical abuse of children and adolescents: do health professionals perceive and denounce?

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Abstract Physical abuse of children is defined as any non-accidental injury or omission of their caregivers that causes risk to the child's integrity. This study aimed to evaluate whether health professionals perceive and report physical abuse in children/adolescents. A total of 62 health professionals (dentists, physicians and nurses) from Diamantina/MG who attend to children and adolescents answered a questionnaire. The collected variables were related to the identification of abuse; denunciation to the authorities and difficulties in making the complaint. Frequency analysis, chi-square test and content analysis were performed. All professionals had identified and reported the occurrence of physical abuse in children/ adolescents. Significant association was observed between the specialty of the professional and the recognition of abuse as well as denunciation to the authorities. The main difficulties presented to denounce the cases to the authorities were lack of knowledge in identifying the abuse and how to make the complaint. Most participants expressed that they would like to receive training in identifying and reporting abuse. Health professionals perceive child abuse, and physicians are the ones who most report the cases.

Key-words Child abuse, Mandatory reporting, Health personnel

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Introduction

Demonstrations of violence affect the lives of human beings at their different stages of development and often bring irreversible damage to their physical, emotional and social health¹. Physical abuse of children is defined as any non-accidental injury or act of omission of those responsible for the child, which results in some injury or substantial risk of death or harm to the child's health¹. Abuse of children and adolescents is considered a global public health problem² and has a multifactorial character, which involves social, cultural, political and economic aspects³.

In this scenario, four types child and adolescents abuse can be recognized: (1) physical abuse, which occurs when a child suffers significant harm inflicted by the parent or caregiver; (2) sexual abuse, through the sexual exploitation of the child by an older person who has a relationship of responsibility, power or trust with the child; (3) neglect, defined as failure of parents or caregivers to provide the child's basic needs so that the child's health and development are significantly impaired; (4) emotional abuse, which occurs when parents or caregivers repeatedly reject the child or use threats to frighten and intimidate the child⁴.

Recent studies have shown that physical abuse in children is quite frequent⁵⁻⁷. In an interview with 3,007 Brazilian individuals from all regions of the country, 44.1% stated that they had suffered some type of physical abuse during childhood⁸. A review of 1,248 cases of child abuse in Minnesota (USA),showed that cases of physical abuse (41.0%) were more prevalent than cases of sexual abuse (35.4%) and episodes of neglect (23.6%). Among the cases of physical abuse, 37.5% of children presented wounds to the head, face, mouth and throat⁹. As the aggressions are directed mainly to the head and neck region, they are easy to see and evidence the fundamental role of the dentist in case detection.

Historically, health professionals experience difficulties in identifying and reporting physically abused children¹⁰. The main doubts in identifying cases are lack of history of abuse, lack of knowledge to diagnose correctly, and fear that children will suffer some kind of consequence¹⁰. However, it is the duty of health professionals to identify and report cases of child abuse to the Guardianship Council. Denunciation is essential to properly investigate the cases. If the complaint is confirmed, those responsible for the abuse may be criminally penalized. Moreover, the complaint

can alleviate the suffering of children and adolescents and give them the possibility of receiving appropriate care.

Moreover, the state of perception and denunciation of the professionals is important for the implementation of public health policies and actions that aid in the training of professionals for effective recognition and denunciation of the aggressors. Such measures may help prevent abuse and protect children and adolescents. Thus, it is important to verify if nurses, physicians and dentists are alert and know how to recognize characteristics of physical abuse, so that they can report cases of this nature.

Therefore, the aim of the present study was to evaluate whether health professionals (dentists, physicians and nurses) perceive and report physical abuse in children/adolescents.

Methods

Ethical issues

The human rights precepts of the Declaration of Helsinki and Resolution 466/12 of the National Health Council were followed. The study was approved by the Research Ethics Committee of the Federal University of Minas Gerais (UFMG). All participants read and signed the informed consent form and were assured that their answers would be treated confidentially and that it would not be possible to identify any individual respondent.

Subjects

This is a cross-sectional study developed in the city of Diamantina, Minas Gerais, southeastern Brazil. The study sample was made up of health professionals (dentists, physicians and nurses) who attend children and adolescents and work in public services and/or private clinics in Diamantina/MG.

Data collection

The present study was conducted with a convenience sample consisting of 62 health professionals (dentists, physicians and nurses) employed in public services and/or in private clinics in Diamantina/MG, who perform clinical care in children and adolescents. Participants were randomly selected by simple draw. Data collection was performed through a questionnaire¹¹ trans-

lated into Brazilian Portuguese, which evaluated the ability of health professionals thatdeal with children and adolescents to recognize and report physical abuse.

The questionnaire was divided into three sections: the first section referred to the participants' occupation, age, gender and professional practice time, counted in years. The second section consisted of 15 questions regarding the recognition of suspected or confirmed cases of physical abuse of children and adolescents. Four questions were related to the number of suspected or confirmed child physical abuse cases observed by the health professional in the past six months (including cases of orofacial lesions). The remaining questions were arranged in the form of a 10-point scale, score of 0 being "unable to recognize" and score of 10 being "complete recognition". The third part of the questionnaire consisted of three open-ended questions related to the reporting of suspected cases of child and adolescent abuse.

Statistical analysis

The data was digitalized and analyzed using the Statistical Package for Social Sciences (SPSS for Windows, version 20.0; SPSS Inc., Chicago, Ill., USA). The analysis included frequency distribution and the chi-square test. The three open-ended questions were analyzed quantitatively and qualitatively. For the analysis of the qualitative data, a development framework was used12,13 which facilitated the conduction of the thematic data analysis^{14,15}. Data was examined for key themes and categories. The data was systematically linked, and the themes and categories were codified and examined in their similarities and differences. Using the content analysis technique, the respondents' expressions were reduced, grouped and counted to identify four key themes: The professional's fear and neglect were cited as reasons for not reporting suspected cases of physical abuse to the authorities; The feedback of the cases solved and the support of the Guardianship Council; Other difficulties that health professionals face to report physical abuse; The health professional's desire to improve their knowledge about physical abuse¹⁶.

Results

The final sample of the present study included 62 participants, consisting of 27 dentists, 10 physicians and 25 nurses. Table 1 shows the age of par-

ticipants and the length of professional practice time. The data related to the recognition of cases of physical abuse of children and adolescents by health professionals are shown in Table 2. A statistically significant difference was observed among the groups of dentists, physicians and nurses in relation to witnessing (p = 0.003), reporting suspected cases (p < 0.001) and observing cases of physical abuse in the last six months (p < 0.001).

Table 3 shows, according to the opinion of the participants, the reasons why health professionals do not report suspected cases of physical abuse to the authorities. There were different opinions among dentists, physicians and nurses. The main reasons were: lack of general knowledge of the problem (p = 0.003), lack of knowledge to address the complaint (p < 0.001), professional negligence (p < 0.001), and belief that reported cases will not be resolved (p = 0.004).

Table 4 shows the attitudes that can be followed by health professionals to identify and report cases of physical abuse of children and adolescents. Most professionals (77.8% of dentists, 70% of physicians and 68% of nurses) demonstrated a desire to receive information and training to be able to better collaborate with the reporting of these cases (p = 0.718). Other attitudes stated by professionals were: the need for greater interaction with other health professionals (p = 0.707);a desire to obtain feedback on the reported cases (p = 0.114); the need for professional secrecy and safety when engaging in complaints of physical abuse (p = 0.691):a desire to receive additional training on how to identify abuse and the mechanism for reporting possible suspected physical abuse of children and adolescents (p = 0.003); and inclusion of training in the pedagogical programs of courses, to better report the physical characteristics of suspected abuse of children and adolescents (p = 0.627).

Content analysis

After content analysis, four themes emerged from the data.

Theme 1: The health professional's fear and neglect were cited as reasons for not reporting suspected cases of physical abuse to the authorities.

The fear presented by the health professionals in getting involved in the case (48.4% of the answers) was a relevant factor considered as a barrier. In addition, 24.2% answered that the lack of complaints is due to negligence of the profes-

Table 1. Age of respondents and duration of professional practice time.

	Dentists n = 27	Physicians n=10	Nurses n=25
	11 – 27	11-10	11-23
Age (in	40,6 (9,8)	35,6 (9,1)	32,2 (7,0)
years)			
Duration of professional	16,7 (9,3)	9,0 (9,1)	7,8 (7,4)
practice time			
(in years)			

Values were expressed as mean (standard deviation).

sionals. The certainty of confidentiality was the most reported factor (25.8% of the answers) that would help health professionals to report suspected cases of child abuse.

Theme 2: The feedback of cases solved and support from the Guardianship Council.

In 24.2% of responses, feedback and certainty of resolution of the reported cases was considered important. Among the answers found, 19.4% reported that psychological, judicial and Guardianship Council support in the defense of children and adolescents and the health professional investigator would also be a good incen-

Table 2. Recognition of cases of physical abuse of children and adolescents by health professionals (n =

	Dentists n (%)	Physicians n (%)	Nurses n (%)	p *
Did you witness physical abuse cases?	11 (40.7)	10 (100.0)	17 (68.0)	0.003
Did you report suspected cases of physical abuse?	2 (7.4)	9 (90.0)	7 (28.0)	< 0.001
Have you seen orofacial trauma in the last six months?	9 (33.3)	4 (40.0)	3 (12.0)	0.114
Have you seen a proven case of physical abuse in the last six months?	0 (0.0)	6 (60.0)	4 (16.0)	<0.001
Do you know the mechanisms for reporting cases of physical abuse?	14 (51.9)	6 (60.0)	13 (52.0)	0.896

^{*}Chi-square test.

Table 3. Difficulties faced by professionals (n = 62).

	Dentists	Physicians	Nurses	••*
	n (%)	n (%)	n (%)	p*
Lack of knowledge	11 (40.7)	10 (100.0)	17 (68.0)	0.003
Do not know where to make the complaint	2 (7.4)	9 (90.0)	7 (28.0)	< 0.001
Insecurity in misreporting	9 (33.3)	4 (40.0)	3 (12.0)	0.114
Professional negligence	0 (0.0)	6 (60.0)	4 (16.0)	< 0.001
Fear presented by professionals	14 (51.9)	6 (60.0)	13 (52.0)	0.896
Non-resolution of cases by competent authorities	0 (0.0)	3 (30.0)	1 (4.0)	0.004

^{*}Chi-square test.

Tabela 4. O que pode ser feito?

	Dentists n (%)	Physicians n (%)	Nurses n (%)	p*
Information and training	21 (77.8)	7 (70.0)	17 (68.0)	0.718
Interaction with other health professionals	1 (3.7)	1 (10.0)	1 (4.0)	0.707
Feedback on reported cases	5 (18.5)	5 (50.0)	5 (20.0)	0.114
Professional secrecy and safety	8 (29.6)	3 (30.0)	5 (20.0)	0.691
Desire to receive training	19 (70.4)	10 (100.0)	25 (100.0)	0.003
Investments on this topic in additional professional training?	25 (92.6)	10 (100.0)	24 (96.0)	0.627

^{*}Chi-square test.

tive to complain, and 12.9% reported that there should be more places of denunciation.

Theme 3: Other difficulties that health professionals face to report physical abuse.

Other reasons were also raised by the participants for not reporting suspicious cases: insecurity in misdiagnosing the case (12.9% of the answers), having to make a police appearance and due bureaucracy to report (3.2% of the answers), lack of legal support (3.2% of responses), omission of the victim (4.8% of responses), and omission of parents and professionals to protect the aggressor (6.5% of responses).

Theme 4: The health professional's desire to improve their knowledge about physical abuse.

Among the responses obtained, the main reasons for not reporting abuse reported in 72.6% of the responses, were the need for more information, and the formation and training of professionals and the general population on physical abuse of children and adolescents. More knowledge about how the complaint should be made and about the psychological and physical aspects of a child or adolescent suffering from abuse are requested by 38.7% of the participants.

Most professionals (87.1%) reported that they wanted additional training on how to identify abuse and the mechanism for reporting suspected physical abuse of children and adolescents, such as courses, multidisciplinary workshops, lectures, advertisements and distribution of pedagogical material. In addition, 95.2% of the total participants stated that identification techniques and knowledge on how to report abuse should be part of professional training courses.

Discussion

The present study was conducted to evaluate the perception by health professionals (dentists, physicians and nurses) of suspected cases of child abuse, as well as to verify whether these professionals report such cases. The results showed that, although health professionals stated having witnessed cases of physical abuse in children and adolescents, few had made the complaint to the authorities. Physicians reported most complaints, while dentists reported the least suspicions to the authorities. This finding is in agreement with some studies that also point out the low rate of reported cases of abuse and neglect, especially by dentists^{11,17}. It is important to convince these professionals that the perception and the complaint are crucial to reducing recurrence and to

prevent that such situations become chronic and eventually lead to the possible death of children and adolescents². Through the complaint, the responsible authorities are informed about the characteristics of the abuse, which is essential to guide actions and public policies that aid in the prevention and support of the health of children and adolescents².

Proportionally, dentists were the professionals who most frequently witnessed cases of orofacial trauma in the last six months. Corroborating with this, several studies have shown that the head and orofacial region are common places of trauma due to child abuse^{18,19}. The dental community should be trained to diagnose cases of accidental and non-accidental traumatic injuries, developing a greater ability to recognize cases of child abuse. Consequently, dentists may occupy an important position in reporting maltreatment suffered by children and adolescents¹², thereby contributing to the protection of these individuals.

Physicians perceived and reported a greater number of suspected child and adolescent physical abuse than dentists and nurses. On the other hand, an earlier study found a higher rate of denunciation by nurses¹¹. The higher rate of perception by physicians and nurses can be explained by the fact that experience and contact with the problem of child maltreatment is more frequent in the daily practice of these professionals²⁰.

According to the content analysis, fear of getting involved in the case and insecurity in misreporting abuse were the main factors in the hesitation of professionals in making complaints. Findings of the present study were similar to those found by other authors: despite the obligation to make the complaint, dentists, as well as other health professionals, were reluctant to report cases of abuse due to factors ranging from uncertainty of diagnosis 10,21, lack of knowledge and fear of consequences²². A recent study²³ showed that the main difficulties reported by dentists for reporting cases of abuse are related to lack of knowledge about the professional's role in reporting child abuse, lack of adequate history about the case, and the concern with the consequences of the complaint on the practice of his/ her profession. On the other hand, the certainty of confidentiality was the solution most reported by participants of the present study as a factor that would help professionals report suspicious cases. Indeed, ensuring that the complainant is not identified is a fundamental requirement to

encourage the attitude of reporting child abuse cases and must be guaranteed in all situations involving the reporting of aggressors.

The desire of health professionals to receive additional training for the identification of child abuse and the mechanisms for reporting them was evident, as well as the need to include this information in formation courses. It has been suggested that education and training in child abuse awareness should be part of the curriculum of undergraduate, postgraduate and continuing education courses11. At graduation, programs should include basic aspects of child development, recognition of signs of child physical abuse, and practical knowledge of legal documentation²⁴, as well as child protection procedures. In postgraduate and continuing education, several elements of identification could be incorporated: clear definitions of concepts of abuse, protocol development, development of specific communication skills, training and efficient reference systems^{11,25}.

This study presents limitations that should be mentioned. Because it is a cross-sectional study, it is not possible to make causal inference. In addition, the sample size was not representative of the city of Diamantina. On the other hand, it is a relevant subject matter that is little explored in the Brazilian literature.

It should be noted that all groups of professionals that deal with children and adolescents play an important role in the act of child protection. It is essential that health professionals receive information and be trained appropriately to effectively diagnose cases of physical abuse of children and adolescents²⁶. A system of child and adolescent protection requires multidisciplinary work involving professionals from different areas¹¹ to ensure prevention and efficiency in reporting cases.

Conclusion

Health professionals perceive child abuse, physicians being the professionals who most often report cases. The main difficulties revealed by health professionals in reporting cases of physical abuse were lack of knowledge to perceive abuse and the fear of reporting cases.

Collaborations

PA Martins-Júnior, DC Ribeiro, GSO Peruch, SM Paiva and ML Ramos-Jorge participated in the analysis and interpretation of the data, and PA Martins-Júnior wrote the paper. LS Marques and ML Ramos-Jorge participated in the design and delineation of the study. All authors approved the final version to be published.

References

- Stein TJ. Legal perspectives on family violence against children. In: Hampton RL, editor. Family Violence. Prevention and Treatment. Newberg Park: Sage Publications; 1993. p. 179-197.
- Valente LA, Dalledone M, Pizzatto E, Zaiter W, Souza JF, Losso EM. Domestic violence against children and adolescents: prevalence of physical injuries in a southern Brazilian metropolis. *Braz Dent J* 2015; 26(1):55-60.
- Minayo MCS, Souza ER. Violence and health as an interdisciplinary field and collective action. *História*, *Ciência*, *Saúde* 1998; 4(3):513-531.
- Algeri S, Souza LM. Violence against children and adolescents: a challenge in daily nursing work. Rev Latino-am Enfermagem 2006; 14(4):625-631.
- Legano L, McHugh MT, Palusci VJ. Child abuse and neglect. Curr Probl Pediatr Adolesc Health Care 2009; 39(2):31.e1-26.
- Salum GA, DeSousa DA, Manfro GG, Pan PM, Gadelha A, Brietzke E, Miguel EC, Mari JJ, Rosário MC, Grassi-Oliveira R. Measuring child maltreatment using multi-informant survey data: a higher-order confirmatory factor analysis. *Trends Psychiatry Psychother* 2016; 38(1):23-32.
- Soares AL, Howe LD, Matijasevich A, Wehrmeister FC, Menezes AM, Gonçalves H. Adverse childhood experiences: Prevalence and related factors in adolescents of a Brazilian birth cohort. *Child Abuse Negl* 2016; 51:21-30.
- Zanoti-Jeronymo DV, Zaleski M, Pinsky I, Caetano R, Figlie NB, Laranjeira R. Prevalence of physical abuse in childhood and exposure to parental violence in a Brazilian sample. Cad Saude Publica 2009; 25(11):2467-2479.
- Fonseca MA, Feigal RJ, Bensel RW. Dental aspects of 1248 cases of child maltreatment on file at a major county hospital. *Pediatr Dent* 1992; 14(3):152-157.
- Owais AI, Qudeimat MA, Qodceih S. Dentists' involvement in identification and reporting of child physical abuse: Jordan as a case study. *Int J Paediatr Dent* 2009; 19(4):291-296.
- Russell M, Lazenbatt A, Freeman R, Marcenes W. Child physical abuse: health professionals' perceptions, diagnosis and responses. *Br J Nurs* 2004; 9(8):332-338.
- 12. John V, Messer LB, Arora R, Fung S, Hatzis E, Nguyen T, San A, Thomas K. Child abuse and dentistry: a study of knowledge and attitudes among dentists in Victoria, Australia. *Aust Dent J* 1999; 44(4): 259-267.
- 13. Polit D. Data analysis and statistics for nursing research. Stamford: Appleton & Lange; 1996.
- 14. Pfaffenberger B. Microcomputer applications in qualitative research. Beverly Hills: Sage; 1988.
- Morse JM, Field PA. Qualitative research methods for health professionals. 2nd ed. London: Chapman & Hall; 1995.
- Ryan G, Bernard H. Data management and analysis methods. In: Denzin N, Lincoln Y. *The Discipline and Practice of Qualitative Research*. Thousand Oaks: Sage Publications; 2000. p. 1-29.
- World Health Organization (WHO). Adverse Childhood Experiences International Questionnaire (ACE-IQ). Geneva: WHO; 2015.

- 18. Starr M, Klein EJ, Sugar N. A Perplexing Case of Child Abuse: Oral Injuries in Abuse and Physician Reporting Responsibilities. Pediatr Emerg Care 2015; 31(8):581-583.
- 19. Printz JN, Baker A, Carr M. Identifying Potential Child Abuse through Oral Examination. Case Rep Pediatr 2017; 2017:6943954.
- 20. Lazenbatt A, Freeman R. Recognizing and reporting child physical abuse: a survey of primary healthcare professionals. J Adv Nurs 2006; 56(3):227-236.
- 21. Andrade LK, Colares V, Cabral HM. Avaliação da conduta dos odontopediatras de Recife com relação ao abuso infantil. Rev Odonto Ciênc 2005; 20(49):231-236.
- 22. Silveira JLG, Mayrink S, Sousanetto OB. Maustratos na infância e adolescência: Casuística, conhecimento e prática de cirurgiões-dentistas de Blumenau-SC. Pesq Bras Odontoped Clín Integr 2005; 5(2):119-126.
- 23. Kaur H, Chaudhary S, Choudhary N, Manuja N, Chaitra TR, Amit SA. Child abuse: Cross-sectional survey of general dentists. J Oral Biol Craniofac Res 2016; 6(2):118-123.
- 24. Shepherd JP, Farrington DP. Assault as a public health problem: discussion paper. J R Soc Med 1993;
- 25. United Kingdom. Department of Health. The Children's Act Report. London: HMSO; 1995.
- 26. Fraser JA, Mathews B, Walsh K, Chen L, Dunne M. Factors influencing child abuse and neglect recognition and reporting by nurses: a multivariate analysis. Int J Nurs Stud 2010; 47(2):146-153.

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