

# Child Physical Abuse; How is the Knowledge

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## Child Physical Abuse: How is the Knowledge and Awareness of Dentists in Surabaya regarding this Issue?

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### Abstract

Child abuse and violence are part of global social and health problems. In 2014, the World Health Organization (WHO) estimated that 23% of children around the world were experiencing physical abuse. Dentists have a significant role in determining child abuse conditions as most of the abusive signs, especially physical abuse, manifest in the oral and facial areas.

This research assessed dentists' knowledge in Surabaya regarding the oral and maxillofacial manifestation of child abuse and their behavior regarding this issue. A cross-sectional survey was conducted among general and pediatric dentists in Surabaya in 2019. Data were collected from an anonymous self-administered questionnaire with consent prior to it. 102 out of 150 questionnaires were completed (79 general dentists and 23 pediatric dentists). 82,35% of participants did not have formal education about child abuse. Only seven people were able to distinguish the manifestation of child abuse in the head and neck area, with pediatric dentist participants as the majority. 14,7% of participants had suspected child abuse during their daily practice, but none reported these findings. 51,9% of participants did not know the existence of legal protection for the reporter, and only 8,8% of participants knew the obligation to report regarding this issue.

Dentists' knowledge and awareness in Surabaya regarding child physical abuse are still lacking. Lessons and education about this issue should be increased, and further socialization about dentists' role in reporting child abuse is needed.

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### Introduction

Child abuse and neglect is a state of emotional, physical, economic, and sexual maltreatment meted out to a person below the age of 18 and is a problem that still arises globally.<sup>1,2</sup> In 2014, the World Health Organization (WHO) estimated that 23% of children worldwide suffered from abuse and maltreatment.<sup>3</sup> In England, the number of child abuse cases reported in 2016-2017 was 13.591. However, this number only showed the reported cases, possibly more children who suffered abuse or neglect.<sup>4</sup> In Indonesia, according to Indonesian Commissionaire of Child Safeguarding, there has been an increase in the number of child abuse and maltreatment cases

during 2011-2014 (2178-5066 cases).<sup>5</sup> In addition, based on data obtained from the Indonesian Ministry of Women's Empowerment and Child Protection, as of 2022, violence cases increased to 14,408, with 56.5% being children.<sup>6</sup> For this, most countries rely on the data reported by educational sectors or healthcare providers. Unfortunately, many cases go undocumented and unreported.<sup>3</sup>

Dentists play a great role in identifying and reporting any child physical abuse suspicion, for 50% of the injuries are manifested in the head and neck area, which dentists routinely examine.<sup>4,7,8</sup> Physical abuse usually has a specific injury pattern and inconsistency with the related history.<sup>9</sup> Unexplained bruises and injury on the neck, cheeks, or eyes; welts; dental fractures or fractures with multiple stages of healing; bitemarks on the cheek; cigarette burns or burns on the tongue; lacerations; hematoma on the lips; and torn frenum on a very young child are examples of commonly inflicted physical injuries that could be observed around oral and maxillofacial area.<sup>9-11</sup> Abusive parents tend to be

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less cautious when visiting the dental practitioner than when visiting the physician, which makes dentists more likely to be the first to recognize violent acts.<sup>9</sup> However many studies has shown that lack of knowledge regarding this issue and on how to report such suspicion.<sup>12</sup>

Thus, this study aims to assess the dentist's knowledge regarding the oral and maxillofacial manifestation of child abuse and their behavior about this issue, including their experience and reporting habits. To the best of our knowledge, there has never been such a study in which dentists' attitudes and knowledge regarding child physical abuse were conducted in Indonesia, especially in Surabaya.

#### Materials and methods

The cross-sectional study was conducted in Surabaya, Indonesia, between May to August 2019. Participants are dental residents in the Faculty of Dental Medicine, Universitas Airlangga, and pediatric dentists in Surabaya. An informed consent form was agreed upon prior to joining the research, and ethical approval was obtained from Universitas Airlangga (No 159/HRECC.FODM/III/2020). Participants were given a self-administered anonymous questionnaire divided into four sections: participants' demographic, knowledge of child abuse, attitude regarding child physical abuse, and experience and actions taken when faced with a suspected case of physical abuse. The questionnaire was based on a previously published study<sup>3</sup> with more questions added for additional information. The questionnaire was piloted by enrolling ten final year students of pediatric dentistry residents in the Faculty of Dental Medicine, Universitas Airlangga, and the result was evaluated.

#### Results

102 out of 150 questionnaires were completed and returned, making it a 68% response rate. Female participants were 67 respondents (65,69 %), while male respondents were 35 people (34,31 %). The age range of the respondents varies from ≤ 30 years old (49 people), 31-39 years old (45 people), 40-49 years old (4 people), and ≥ 50 years old (4 people). Of the 102 participants, most were general dentist practitioners (73,5%), and the rest

had higher education (postgraduate and/or pediatric dentist and/or doctoral). Amongst those, only 18 participants received formal training regarding child abuse.

#### Knowledge of child physical abuse

Participants were asked a total of 13 multiple-choice questions to assess their knowledge of child physical abuse. The questions include the manifestation of child physical abuse around oral and maxillofacial areas and how reports should be made. Only 6,9% of participants could correctly identify all manifestations of child physical abuse, and most of the correct participants were pediatric dentists. Concussions around the eyes, head injury, and lips lacerations were chosen as the most answered by participants (Figure 1). Next questions are about legal protection of reporting child abuse cases, the ability to provide supportive evidence, and where to report such suspicion. Most respondents did not know (51,96%) that there were laws protecting health providers who report suspicion of child abuse, and only 26 respondents (25,49 %) answered correctly were to make a report upon facing this issue. Regarding the ability to provide evidence, only 41 (40,20 %) respondents said they could give correct supporting evidence.

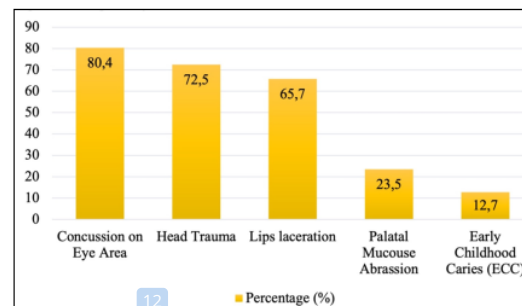
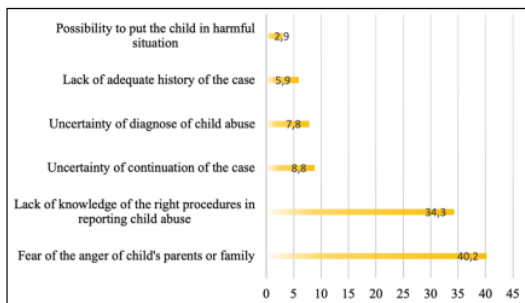


Figure 1. Majority of signs of child physical abuse in the oral and maxillofacial areas answered by respondents.

#### Attitude regarding child physical abuse

Most respondents agreed that dentists have a significant role in detecting and reporting suspicion of child physical abuse (95,1%), and 100% of respondents also agreed that reporting suspicion of child abuse is important. Documenting signs and symptoms in the child's medical record is vital when the dentist suspects

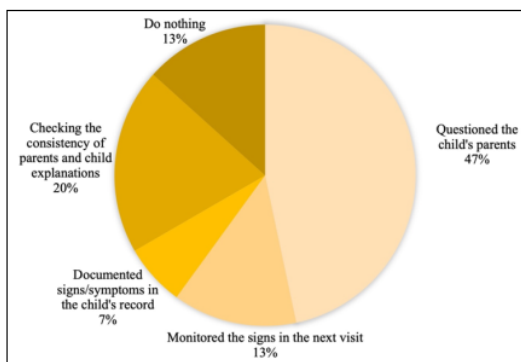
child abuse (93.1%). Regarding the adequacy of materials on child abuse during dental school, 46,1% of respondents agreed that it was still insufficient. Lastly, when asked about the reason for underreporting of abuse cases, fear of the anger of the child's parents or family was placed as the top answer (Figure 2).



**Figure 2.** Distribution of leading causes of underreporting of child physical abuse amongst participants (%).

#### Experience and actions taken when faced with a suspected case of physical abuse

Participants that have experience suspicion of child and physical abuse cases are only fifteen people (14,7%). However, unfortunately, there were no dentists that reported their findings to the police or the authorities. The lack of clear causal history is the reason respondents do not make a report. When asked about their action upon finding the suspicious signs/ symptoms of child physical abuse, seven (47%) of them tried to dig for more information by asking parents/guardians about the signs (Figure 3).



**Figure 3.** Distribution of action taken by participants when child abuse was suspected (%).

#### Discussion

This study assessed dentists' knowledge and behavior regarding child physical abuse in Surabaya, Indonesia. As mentioned above, dentists have a significant responsibility in reporting child abuse and neglect suspicion. Despite the responsibility, many dentists were unaware of these issues. The participants that could correctly identify all the signs and symptoms of child physical abuse are not even close to half of it, indicating the dentist's insufficient knowledge. A similar study conducted by Mogaddam et al.<sup>3</sup>, Al-Dabaan et al.<sup>13</sup>, and Cukovic-Bagic et al.<sup>12</sup> also showed the same results, which is insufficient knowledge regarding this issue. The most chosen answer about signs of child physical abuse is concussion on the eye, and the least chosen answer was severe early childhood caries (S-ECC). Although it was not specifically stated that bruising in the eye area is the highest sign of physical abuse in children, a study by Becker in Costacurta et al.<sup>10</sup> reported that 49% of 260 documented cases of child abuse consisted of 61% injuries to the face, 33% head injuries and 6% injuries if the oral cavities. Kvist et al.<sup>14</sup> in their study about children on suspicion of child abuse, stated that children that suffer from S-ECC and have poor oral health experienced domestic abuse. Thus S-ECC could also be suspected as a sign of child physical abuse. Even so, S-ECC is a chronic oral condition that is widespread around the globe, so it is challenging to determine S-ECC as an actual neglecting act, even in children with extremely high caries condition. Many variables determine children's dental health level. Therefore careful consideration and evaluation are needed to determine the proper diagnosis.<sup>15-19</sup>

More than half of respondents (51,96%) stated that they were not aware of legal protection and reporting law regarding child abuse. Indonesia has regulations that mandate healthcare providers (including dentists) to report any suspicion regarding child abuse and also provide protection to those who make a report.<sup>20</sup> However, these regulations are highly likely not known worldwide by all dentists or other healthcare operators in Indonesia. This result is similarly shown in the previous studies abroad that revealed dentists in Saudi Arabia also have insufficient knowledge of which they should report a suspected case of child abuse.<sup>3</sup> The US

has clear law which mandates dentists to report suspected violence amongst their patients, and the person that makes a report will be provided protection. They will even be sentenced to prison and fines ranging from up to \$1,000 through \$10,000 if it was proven there had been suspicion of child abuse, but the healthcare provider failed to make a report.<sup>21</sup> Even so, the report by Katner and Brown in Tantawi et al.<sup>22</sup> showed that US dentists' respondents were unaware of such regulations.

Most respondents also stated that the materials regarding child abuse they got during dental school were insufficient. This result is in line with other studies in other countries.<sup>1,3,13</sup> According to Thomas et al. in Bodrumlu et al.<sup>23</sup> and Anshula et al.<sup>7</sup>, the classroom-setting lecture only and fewer practical lessons could be the reason for the dentist's lack of knowledge of child abuse.

Regarding the dentist's attitude regarding this issue, respondents showed positive feedback. Most of them agreed that dentists play a significant role in reporting suspicion, and all agreed that reporting such suspicion is essential. Even so, not many dentists make a report when facing suspicion of child physical abuse. As stated before, many countries have laws and regulations regarding healthcare providers (including dentists) obligation to report any suspicion of child abuse.<sup>12,16,22</sup> However, many dentists are still unaware of this law and if they are mandated to make a report.<sup>21</sup>

Underreporting of child physical abuse suspicion happens in many countries, for example, as stated in studies in Pakistan, India, and Saudi Arabia.<sup>3,7,24</sup> Studies of underreporting of child abuse conducted worldwide showed different leading causes. This study showed that fear of the anger of a child's parents or family is the main cause for dentists not to make a report. This result differed from the study in Saudi Arabia, Turkey, and India, which lacked knowledge of how to make a report and the obligation to make a report placed as the primary cause.<sup>3,13,23,25</sup> The different results also showed in a study in Malaysia that lack of history and uncertainty of diagnosis as the main cause of underreporting<sup>1</sup>, while in Croatia, the possibility of a child will be in danger was the main cause.<sup>12</sup>

Regarding the experience of child physical abuse during everyday practice, fifteen

respondents stated that they had suspected such a case. However, unfortunately, they did not make any report about their suspicion. Even so, their first action when they encountered signs and symptoms of child abuse was digging for more info from the parents regarding the cause of the signs. In Indonesia, the Ministry of Health, in fact, has made a proper procedure and prevention flow for child abuse cases in hospitals and government health center.<sup>5</sup>

## Conclusions

Dentists' knowledge and awareness regarding child physical abuse are still lacking. Lessons and education about this issue should be increased, and further socialization about dentists' role in reporting child abuse is needed. Finally, a more improved study could be conducted on a larger scale to explore more opinions of dentists and discuss the barrier or difficulties they encountered when facing child physical abuse cases.

## Declaration of Interest

The authors report no conflict of interest.

## References

1. Hussein AS, Ahmad R, Ibrahim N, Yusoff A, Ahmad D. Dental health care providers' views on child physical abuse in Malaysia. *Eur Arch Paediatr Dent*. 2016; 17(5): 387-395.
2. Kiran K. Child Abuse and Neglect. *J Indian Soc Pedod Prev Dent*. 2011; 29(6): 79-82.
3. Mogaddam M, Kamal I, Merdad L, Alamoudi N. Knowledge, attitudes, and behaviors of dentists regarding child physical abuse in Jeddah, Saudi Arabia. *Child Abuse Negl*. 2016; 54: 43-56.
4. Clarke L, Chana P, Nazzal H, Barry S. Experience of and barriers to reporting child safeguarding concerns among general dental practitioners across Greater Manchester. *Br Dent J*. 2019; 227(5): 387-391.
5. Ministry of Health. Kekerasan Terhadap Anak dan Remaja. 2018: 2442-7659
6. SIMFONI-PPA. Indonesian Ministry of Women's Empowerment and Child Protection.
7. Deshpande A, Macwan C, Poonacha KS, Bargale S, Dhillon S, Porwal P. Knowledge and attitude in regards to physical child abuse amongst medical and dental residents of central Gujarat: A cross-sectional survey. *J Indian Soc Pedod Prev Dent*. 2015; 33(3): 177-182.
8. Harris J, Whittington A. Dental neglect in children. *Paediatr Child Heal (United Kingdom)*. 2016; 26(11): 478-484.
9. Dean JA. McDonalds and Avery's Dentistry for the Child and Adolescent. 10th ed. USA: Elsevier; 2016.
10. Costacurta M, Benavoli D, Arcudi G, Docimo R. Oral and dental signs of child abuse and neglect. *ORAL Implantol*. 2015; 8(2-3): 68-73.
11. Fisher-Owens SA, Lukefahr JL, Tate AR. Oral and Dental Aspects of Child Abuse and Neglect. *Pediatrics*. 2017; 140(2): e20171487.

12. Cukovic-Bagic I, Dumancic J, Kujundzic Tiljak M, et al. Croatian dentists' knowledge, experience, and attitudes in regard to child abuse and neglect. *Int J Paediatr Dent.* 2015; 25(6): 444-450.
13. Al-Dabaan R, Newton JT, Asimakopoulou K. Knowledge, attitudes, and experience of dentists living in Saudi Arabia toward child abuse and neglect. *Saudi Dent J.* 2014; 26(3): 79-87.
14. Kvist T, Annerbäck EM, Dahlöf G. Oral health in children investigated by Social services on suspicion of child abuse and neglect. *Child Abuse Negl.* 2018; 76: 515-523.
15. Bhatia SK, Maguire SA, Chadwick BL, et al. Characteristics of child dental neglect: A systematic review. *J Dent.* 2014; 42(3): 229-239.
16. Harris JC, Balmer RC, Sidebotham PD. British Society of Paediatric Dentistry: a policy document on dental neglect in children. *Int J Paediatr Dent.* 2018; 28(5): e14-e21.
17. Setiawati F, Amalliah I, Preticia, Ramadhani A, Maharani D. Associated Factors of Early Childhood Caries (ECC) Among 24-42-Month-Old-Children in Jakarta: A Cross-Sectional Study. *J Int Dent Med Res.* 2021; 14(4): 1573-1579.
18. Fera M, Fera O, Kryvanych V, et al. Analysis of Environmental and Person-Oriented Factors Influence on Dental Caries Intensity among Children Population of Transcarpathia. *J Int Dent Med Res.* 2020; 14(3): 1326-1333.
19. Bramantoro T, Prabandari YS, Ismail D, Tedjosasongko U. The development of early childhood caries impact on quality of life-Indonesia instrument as assessment instrument of dental caries impact on quality of life of children aged 3-5 years based on Indonesian community characteristics. *Dent J (Majalah Kedokt Gigi).* 2015; 48(4): 197-203.
20. MenKes. *Peraturan Menteri Kesehatan Republik Indonesia Tentang Kewajiban Pemberi Layanan Kesehatan Untuk Memberikan Informasi Atas Adanya Dugaan Kekerasan Terhadap Anak.* Indonesian Ministry of Health; 2013:1-27.
21. Burgette JM, Safdari-Sadaloo SM, Van Nostrand E. Child dental neglect laws: Specifications and repercussions for dentists in 51 jurisdictions. *J Am Dent Assoc.* 2020; 151(2): 98-107.
22. El Tantawi M, Gaffar B, Arheiam A, et al. Dentists' intention to report suspected violence: A cross-sectional study in eight Arab countries. *BMJ Open.* 2018; 8(3): 1-8.
23. Hazar Bodrumlu E, Avşar A, Arslan S. Assessment of knowledge and attitudes of dental students in regard to child abuse in Turkey. *Eur J Dent Educ.* 2018; 22(1): 40-46.
24. Khan HMA, Mansoori N, Sohail MH, Humayun MA, Liaquat A, Mubeen SM. Child physical abuse: Awareness and practices of medical and dental doctors in Pakistan. *J Pak Med Assoc.* 2021; 71(6): 1704-1708.
25. Kaur H, Choudhary S, Choudhary N, Manuja N, Chaitra TR, Amit SA. Child abuse: Cross-sectional survey of general dentists. *J Oral Biol Craniofacial Res.* 2016; 6(2): 118-123.

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