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3 **Child physical abuse: awareness and practices of medical and**
4 **dental doctors in Pakistan**

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13
14 **Abstract**

15 **Objectives:** To determine the awareness and practices of doctors and dentists in
16 detecting and reporting suspected cases of child physical abuse.

17 **Methods:** The cross-sectional study was conducted from November 2017 to June
18 2018 at the Hamdard College of Medicine and Dentistry, Karachi, and comprised
19 doctors and dentists practising in public and private hospitals across Pakistan.
20 Data was collected using a predesigned questionnaire to assess knowledge of the
21 social indicators of child physical abuse, response to child physical abuse, and
22 actions taken by the professionals when they believed a child abuse case had been
23 detected. Data was analysed using SPSS 22.

24 **Results:** Of the 575 healthcare professionals, 371(64.5%) were doctors and
25 204(35.5%) were dentists; 347(60.3%) were males; 446(77.6%) were working in
26 private hospitals; 384(66.8%) had <10 years of experience; and 99(17.2%) had
27 received formal training of child abuse. While 450(78.3%) subjects strongly

28 agreed on the value of identifying and documenting child physical abuse,
29 336(58%) did not take any action in suspected cases.

30 **Conclusion:** Although doctors and dentists had a positive attitude regarding child
31 physical abuse, the majority preferred to remain silent in suspected cases.

32 **Key Words:** Child, Physical abuse, Physicians, Dentists, Pakistan.
33

34 **Introduction**

35 Child abuse is a state of mental, physical, economic and sexual abuse to a person
36 aged <18.¹ Child physical abuse is known as a global phenomenon with a serious
37 impact on the physical and mental health, well-being and growth of children over
38 their lifetime and, by extension, on society as a whole. Therefore, individual
39 interpretation and definition of violence affect the identification and
40 documentation of physical abuse. The World Health Organisation (WHO)
41 estimates that worldwide in 2014, 23% children were physically abused.² Child
42 Protective Service (CPS) agencies in the United States have investigated more
43 than 2 million cases of suspected child abuse; of them 18% were physically
44 abused, more than 650,000 children were found to be perpetrators of
45 maltreatment, and >1,500 child deaths were traced annually to child abuse or
46 neglect.³

47 A research on child abuse found that 72.2% children in India were physically
48 abused¹. Reports from Afghanistan⁴, Sri Lanka⁴ and Malaysia⁵ have reported a
49 high incidence of child abuse. In Karachi, the incidence ranged 8-43%.⁶⁻⁸ Sadly,
50 a large proportion of incidents of child physical abuse go unreported and
51 unresolved.

52 Medical and dental practitioners may play an important role in recognising and
53 documenting child physical abuse incidents. The Child Maltreatment Registry
54 based in a Saudi Hospital found head trauma to be the most common type of
55 injury caused by physical child abuse.⁹ Therefore, they are in a distinct position

56 for assessing physical child abuse as 50% of injuries occur in the head and neck
57 region.¹⁰

58 Many studies have been examining the awareness and attitudes of doctors around
59 the world regarding child physical abuse.¹¹⁻¹⁴ Studies from different parts of the
60 world have shown that healthcare providers do not disclose reported cases of
61 abuse primarily due to lack of knowledge.^{15,16}

62 In the United States, all staff in direct contact with children, such as teachers,
63 social workers and healthcare providers, are required to report all alleged cases
64 of abuse to the appropriate child protection agency within their member states.¹⁷

65 The European Union has ordered that staff in close contact with children would
66 report to the competent legal authorities alleged cases of abuse. However, more
67 than half of these countries allow citizens to report these cases to the authorities,
68 but without any legal obligation under European regulations.¹⁸ In countries like
69 Jordan, only healthcare workers are required to report reported cases of abuse to
70 the police or the national hotline for abuse of children¹⁹ It is obligatory for
71 education and healthcare sectors in Saudi Arabia to report alleged cases of child
72 abuse to police.²⁰ The standard of medical education is, therefore, an important
73 aspect.

74 Child maltreatment is a public health problem with lifelong health consequences
75 for survivors and their families.²¹ Children who have been neglected have poor
76 effects of their health, and there is evidence that early traumatic childhood
77 experiences contribute significantly to several adult diseases.²² The current study
78 was planned to establish medical and dental practitioners' knowledge and
79 practices in identifying and reporting suspected cases of physical abuse of
80 children.

81

82 **Subjects and Methods**

83 The cross-sectional study was conducted from November 2017 to June 2018 at
84 the Hamdard College of Medicine and Dentistry, Karachi, and comprised

85 medical and dental practitioners in public and private hospitals in Karachi, Lahore
86 and Quetta. After approval from the institutional ethics review committee, the
87 sample size was calculated with 95% confidence interval (CI), 5% margin of error
88 and 50% anticipated prevalence. However, keeping in view possible non-
89 response, the sample size was inflated by 10%. The sample was raised using
90 using non-probability convenience sampling technique from among medical and
91 dental practitioners with at least one-year experience who volunteered to
92 participate. Non-practicing health professionals, those with <1-year experience
93 and those not willing to participate were excluded. The data was collected using
94 a predesigned self-administered questionnaire based on previous studies^{10,11,19,23},
95 while additional questions were included to collect further information. The
96 questionnaire was reviewed by a medico-legal doctor with field knowledge. Four
97 sections were included in the final questionnaire. The first section related to
98 demographic and basic characteristics, while the second section contained
99 multiple-choice questions (MCQs) about knowledge of child physical abuse. The
100 third section assessed the attitudes of the participants towards child physical
101 abuse using a five-point Likert scale ranging from 'strongly disagree' = 1 to
102 'strongly agree' = 5. Opinions regarding the main causes of underreporting of
103 child physical abuse cases among doctors were also asked. The last section asked
104 about the reporting behaviours of the participants and the actions they would take
105 if they suspected that a child was facing physical abuse. Additionally, the
106 questionnaire also evaluated institutional behaviours and the availability of clear
107 procedures for doctors to follow in cases of child physical abuse.

108 Each doctor was approached individually and they were encouraged to give their
109 responses in an unbiased manner. In case of missing data, the doctors were
110 contacted again at the earliest and details were rechecked.

111 Data was analysed using SPSS 22. Chi-square test was used to assess the
112 relationship between male and female doctors with knowledge regarding child
113 physical abuse. $P < 0.05$ was considered statistically significant.

114 **Results**

115 Of the 575 healthcare professionals, 371(64.5%) were doctors and 204(35.5%)
116 were dentists; 347(60.3%) were males; 446(77.6%) were working in private
117 hospitals; 384(66.8%) had <10 years of experience; and 99(17.2%) had received
118 formal training of child abuse. The overall mean age of the sample was 33.5±9.6
119 years. The differences related to gender and job placement in public and private
120 sectors were significant in some of the aspects explored by the study
121 questionnaire (Table 1)

122 Regarding signs of child abuse, 462(80%) professionals pointed out contusions,
123 283(49%) burn marks, 264(46%) broken teeth and 252(44%) said head injury. A
124 huge majority 514(89%) of the professionals showed the correctly behaviour if they
125 believed that a child was physically abused. There were significant differences
126 in this regard between professionals at public and private hospitals ($p<0.05$).
127 Also, 317(91%) males knew about the legal authorities where cases of child
128 physical abuse wre to be reported ($p<0.05$).

129 Most of the respondents 564(98%) agreed about the importance of detecting and
130 reporting child physical abuse cases; 558(97%) agreed that doctors had an
131 important role in this regard; 507(88%) reported having detected child physical
132 abuse cases; and 529(92%) pointed out the need to have the required training to
133 detect such cases. Overall, 80(14%) doctors said they had enough knowledge
134 about physical child violence in medical/dental schools (Table 2).

135 Fear of response from family members, especially parents, was the leading cause
136 of physical abuse underreporting in 339(59%) cases, followed by lack of
137 knowledge related to the referral procedures in 298(52%) cases (Figure 1).

138 While 450(78.3%) subjects strongly agreed on the value of identifying and
139 documenting child physical abuse, 336(58%) did not take any action in suspected
140 cases (Figure 2).

141

142

143 Discussion

144 In the current study, 123(21%) cases of child physical abuse were suspected by
145 physicians, 105(18%) were confirmed, and 59(10%) was recorded. These
146 proportions are not different from other studies^{9,11,12,19}.

147 The mean age of the doctors in the study was 33.5 years with 60:40 male-female
148 ratio. A recent study on the matter had a mean age of 38 years and had 52.6%
149 male doctors²⁴. Several studies regarding opinion about child physical abuse were
150 conducted exclusively either on physicians^{24,25} or dentists^{9,11}, the present study
151 included professionals from both the fields.

152 In the present study, 212(37.0%) doctors had <5 years of experience, 446(77.6%)
153 worked in public-sector hospitals, and only 99(17.2%) received formal training
154 of child abuse. Other studies also had majority of doctors working in public-sector
155 hospitals, but only 13-14%^{9,24} had received formal training of child abuse.

156 Among different clinical signs of child abuse, skin bruises were mentioned by
157 462(80%) doctors, followed by burn marks 283(49%), broken teeth 264(46%)
158 and head trauma 252(44%). A study showed that skin bruises and burns were the
159 most frequent and noticeable injuries of physical abuse of children.²⁶

160 There were 240(42%) professionals willing to refer the suspected cases to legal
161 authorities compared to 50%⁹, 84%¹¹ and 22%²⁴ found by other studies. The
162 current study had 340(59%) professionals saying they should report under all
163 circumstances even if abuse was only suspected. In comparison, a study showed
164 insufficient knowledge under which a suspected child abuse case should be
165 identified.⁹

166 As for social indicators of physical abuse in children, 426(74%) subjects did not
167 agree with the fact that children who are abused disclose it immediately after the
168 event. Studies in Saudi Arabia (73%)¹¹ and Jordan (56%)²³ revealed similar
169 results. In the current study, 288(50%) doctors agreed that physical child abuse
170 was associated with stressors due to poverty and rarely occurs amongst middle or
171 high-income earners. Ironically, studies in Saudi Arabia (75%)¹¹, the United Arab

172 Emirates (UAE) (60%)¹⁴ and Jordan (60%)¹⁹ wrongfully thought violence was
173 only related to poverty and low socioeconomic status. The current study's
174 findings related to the best way of addressing suspected cases of childhood
175 physical abuse were similar to earlier findings.¹

176 More than 450(98%) participants in the current study were overwhelmingly
177 positive in their outlook towards the role of the doctors in the identification and
178 reporting of child physical abuse. This is in line with similar findings in studies
179 done in Saudi Arabia¹¹, Scotland¹², Jordan²³ and Greece²⁷. The study found that
180 physical abuse of children was not properly taught in medical and dental schools,
181 and that also has been reported earlier.^{11,14}

182 The reason given by doctors for not disclosing alleged cases of abuse was
183 primarily fear of family and parental rage 339(59%), and lack of knowledge of
184 referral procedures 298(52%). Several reports have demonstrated similar
185 results.^{9,11,19,23}

186 In cases of alleged child abuse, only 80(14%) participants asked children or their
187 parents to record signs and symptoms of the actions taken by the physicians.
188 Suspicion for physical abuse was reported in child's file by 75(13%) participants,
189 monitoring the suspected case during following visits was done by 45(8%) and
190 only 39(7%) reported suspected cases to the legal authorities. Other studies have
191 shown similar results^{9,13}.

192 The limitations of the current study include the lack of participation by senior
193 doctors.

194

195 **Conclusion**

196 Awareness and knowledge levels among the professionals was sufficient with
197 regard to child physical abuse. However, when it came to taking action, many of
198 the subjects did not take any action in suspected cases, primarily because of fear
199 of dissatisfaction on the part of parents and their families and lack of knowledge
200 about referral procedures.

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204

205 **References**

- 206 1. Deshpande A, Macwan C, Poonacha KS, Bargale S, Dhillon S, Porwal P.
207 Knowledge and attitude in regards to physical child abuse amongst medical
208 and dental residents of central Gujarat: A cross-sectional survey. *J Indian Soc*
209 *Pedod Prev Dent.* 2015 Jul 1;33(3):177.
- 210 2. World Health Organization. (2014). Child maltreatment. Geneva,
211 Switzerland: World Health Organization. Available from:
212 http://www.who.int/violence_injury_prevention/violence/child/en/. Accessed
213 on March 2018.
- 214 3. Pietrantonio AM, Wright E, Gibson KN, Alldred T, Jacobson D, Niec A.
215 Mandatory reporting of child abuse and neglect: Crafting a positive process
216 for health professionals and caregivers. *Child Abuse Negl.* 2013 Feb 1;37(2-
217 3):102-9.
- 218 4. Catani C, Schauer E, Neuner F. Beyond individual war trauma: domestic
219 violence against children in Afghanistan and Sri Lanka. *J Marital Fam Ther.*
220 2008 Apr;34(2):165-76.
- 221 5. Choo WY, Walsh K, Marret MJ, Chinna K, Tey NP. Are Malaysian teachers
222 ready to assume the duties of reporting child abuse and neglect?. *Child Abuse*
223 *Rev.* 2013 Mar;22(2):93-107.
- 224 6. Ali NS, Khuwaja AK. Magnitude and factors associated with child abuse in a
225 mega city of developing country Pakistan. *Iran J Pediatr.* 2014 Apr;24(2):140.
- 226 7. Lakhdar M, Kadir M, Azam I, Parpio Y, Khan U, Razzak J. Prevalence of child
227 abuse among children aged 11 to 17 years old in community settings of
228 Karachi, Pakistan. *Inj Prev.* 2016;22(Suppl 2):A1-A397

- 229 8. Zainab S, Kadir MM. Nutritional status and physical abuse among the children
230 involved in domestic labour in Karachi Pakistan: a cross-sectional survey. *J*
231 *Pak Med Assoc.* 2016;66(10):1243.
- 232 9. Sharma BR, Gupta M. Child abuse in Chandigarh, India, and its implications.
233 *J Clin Forensic Med* 2004;11:248-56.
- 234 10. Mogaddam M, Kamal I, Merdad L, Alamoudi N. Knowledge, attitudes, and
235 behaviors of dentists regarding child physical abuse in Jeddah, Saudi Arabia.
236 *Child Abuse Negl.* 2016 Apr;54:43-56.
- 237 11. Al-Dabaan R, Newton JT, Asimakopoulou K. Knowledge, attitudes, and
238 experience of dentists living in Saudi Arabia toward child abuse and neglect.
239 *Saudi Dent J.* 2014 Jul;26(3):79-87
- 240 12. Azevedo MS, Goettems ML, Brito A, Possebon AP, Domingues J, Demarco
241 FF, et al. Child maltreatment: a survey of dentists in southern Brazil. *Braz Oral*
242 *Res.* 2012 Feb;26(1):5-11.
- 243 13. Harris CM, Welbury R, Cairns AM. The Scottish dental practitioner's role in
244 managing child abuse and neglect. *BDJ Open.* 2013 May;214(9):E24.
- 245 14. Hashim R, Al-Ani A. Child physical abuse: assessment of dental students'
246 attitudes and knowledge in United Arab Emirates. *Eur Arch of Paediatr Dent.*
247 2013 14:301-5.
- 248 15. Manea S, Favero GA, Stellini E, Romoli L, Mazzucato M, Facchin P.
249 Dentists' perceptions, attitudes, knowledge, and experience about child abuse
250 and neglect in northeast Italy. *J Clin Pediatr Dent* 2007;32:19-25.
- 251 16. Saric B, Saric B, Vasilj I. Knowledge, skills and attitudes of physician's
252 recognition on violence against children. *J Soc Dev New Net Environ BH*
253 2012;6:324-8.
- 254 17. Ungar M. Resilience after maltreatment: The importance of social services as
255 facilitators of positive adaptation. *Child Abuse Negl.* 2013 37:110-5.
- 256 18. European Union Agency for Fundamental Rights. (2015a). Provisions on
257 professionals' legal obligation to report cases of child abuse, neglect and

- 258 violence. Available from:
259 <https://www.childwelfare.gov/topics/systemwide/laws->
260 [policies/statutes/mandat/](https://www.childwelfare.gov/topics/systemwide/laws-policies/statutes/mandat/). Accessed on March 2018.
- 261 19. Owais AI, Qudeimat MA, Qodceih S. Dentists' involvement in identification
262 and reporting of child physical abuse: Jordan as a case study. *Int J Clin*
263 *Paediatr Dent*. 2009;19(4):291-6.
- 264 20. Almuneef MA, Fadia Al Buhairan MD. Child Maltreatment Prevention
265 Readiness Assessment Country Report: Saudi Arabia January 2012. *Child*
266 *Maltreat*. 2012 11:12.
- 267 21. Norman RE, Byambaa M, De R, Butchart A, Scott J, Vos T. The long-term
268 health consequences of child physical abuse, emotional abuse, and neglect: a
269 systematic review and meta-analysis. *PLoS Med*. 2012 27;9(11):e1001349.
- 270 22. Vachon DD, Krueger RF, Rogosch FA, Cicchetti D. Assessment of the
271 harmful psychiatric and behavioral effects of different forms of child
272 maltreatment. *JAMA psychiatry*. 2015 Nov;72(11):1135-42.
- 273 23. Sonbol HN, Abu-Ghazaleh S, Rajab LD, Baqain ZH, Saman R, Al-Bitar ZB.
274 Knowledge, educational experiences and attitudes towards child abuse
275 amongst Jordanian dentists. *Eur J Dent Educ*. 2012 Feb;16(1):e158-65.
- 276 24. Demirçin S, Tütüncüler A, Aslan F, Güney SV, Atılgan M, Gülkesen H. The
277 knowledge level and opinions of physicians about the medical and legal
278 procedures related to physical child abuse. *Balkan Med J*. 2017
279 Mar;34(2):140.
- 280 25. Sofuoğlu Z, Oral R, Aydın F, Cankardeş S, Kandemirci B, Koç F, et al.
281 Epidemiological study of negative childhood experiences in three provinces
282 of Turkey. *Turk Pediatri Ars*. 2014 Mar;49(1):47.
- 283 26. Christian CW, Committee on Child Abuse and Neglect. The evaluation of
284 suspected child physical abuse. *Pediatrics*. 2015 May;135(5):e1337-54.

285 27. Laud A, Gizani S, Maragkou S, Welbury R, Papagiannoulis L. Child
 286 protection training, experience, and personal views of dentists in the
 287 prefecture of Attica, Greece. Int J Clin Paediatr Dent. 2013 Jan;23(1):64-71.

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291 **Table 1: Doctors' knowledge about child physical abuse (N=575)**

| | | Total n=575 | Male n=347 | Female n=228 | P value | Public n=446 | Private n=129 | P value |
|--|-------|----------------|---------------|-----------------|---------|-----------------|------------------|----------|
| | | n (%) | n (%) | n (%) | | n (%) | n (%) | |
| Training about Child Physical Abuse | | | | | | | | |
| | Yes | 99 (17.2) | 70 (20.2) | 29 (12.7) | 0.013* | 87 (19.5) | 12 (9.3) | 0.004* |
| | No | 476 (82.8) | 277 (79.8) | 199 (87.3) | | 359 (80.5) | 117 (90.7) | |
| Information about signs of Child Physical Abuse | | | | | | | | |
| | Yes | 550 (95.7) | 336 (96.8) | 214 (93.9) | 0.68 | 425 (95.3) | 125 (96.9) | 0.30 |
| | No | 25 (4.3) | 11 (3.2) | 14 (6.1) | | 21 (4.7) | 4 (3.1) | |
| Knowledge about action a doctor should take if he/she suspects a case of Child Physical Abuse | | | | | | | | |
| | Yes | 514 (89.4) | 309 (89.0) | 205 (89.9) | 0.42 | 388 (87.0) | 126 (97.7) | <0.0001* |
| | No | 61 (10.6) | 38 (11.0) | 23 (10.1) | | 58 (13.0) | 3 (2.3) | |
| Information about legal authority where cases of Child Physical Abuse be reported | | | | | | | | |
| | Yes | 512 (89.0) | 317 (91.4) | 195 (85.5) | 0.021* | 394 (88.3) | 118 (91.5) | 0.20 |
| | No | 63 (11.0) | 30 (8.6) | 33 (14.5) | | 52 (11.7) | 11 (8.5) | |
| Children who have been physically abused will usually tell someone soon after the abuse | | | | | | | | |
| | True | 149 (25.9) | 105 (30.3) | 44 (19.3) | 0.002* | 97 (21.7) | 52 (40.3) | <0.0001* |
| | False | 426 (74.1) | 242 (69.7) | 184 (80.7) | | 349 (78.3) | 77 (59.7) | |
| Physical child abuse is primarily associated with the stresses of poverty and rarely occurs amongst middle-or high-income earners | | | | | | | | |
| | True | 286 (49.7) | 180 (51.9) | 106 (46.5) | 0.12 | 223 (50.0) | 63 (48.8) | 0.44 |
| | False | 289 (50.3) | 167 (48.1) | 122 (53.5) | | 223 (50.0) | 66 (51.2) | |

| The abuser in most physical violence cases is someone the child knows well from his/her surrounding environment | | | | | | | | |
|--|-------|------------|------------|------------|------|------------|------------|--------|
| | True | 470 (81.7) | 277 (79.8) | 193 (84.6) | 0.08 | 369 (82.7) | 101 (78.3) | 0.15 |
| | False | 105 (18.3) | 70 (20.2) | 35 (15.4) | | 77 (17.3) | 28 (21.7) | |
| The best way to deal with suspected cases of childhood physical abuse is to confront the parents and accuse them directly of the abuse | | | | | | | | |
| | True | 220 (38.3) | 140 (40.3) | 80 (35.1) | 0.11 | 180 (40.4) | 40 (31.0) | 0.033* |
| | False | 355 (61.7) | 207 (59.7) | 148 (64.9) | | 266 (59.6) | 89 (69.0) | |

292 * P-value <0.05

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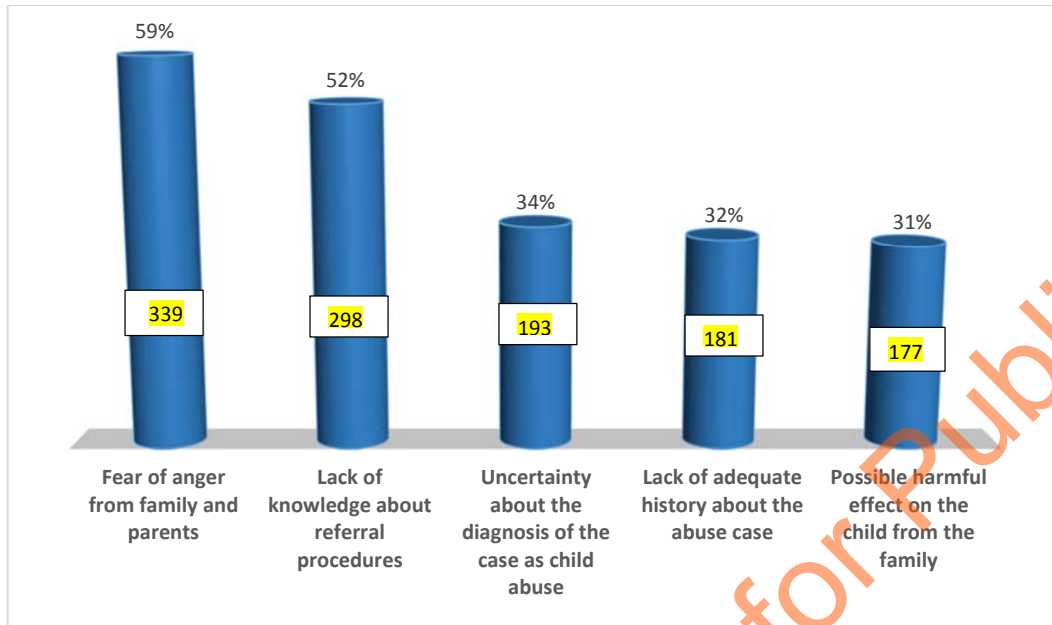
296 **Table 2: Distribution of doctors' attitude towards child physical abuse**
 297 **(N=575)**

| Attitude of doctors | Strongly disagree | Disagree | Neutral | Agree | Strongly agree | Mean (SD) |
|---|-------------------|------------|------------|------------|----------------|--------------|
| | n (%) | n (%) | n (%) | n (%) | n (%) | |
| Detecting and reporting childhood physical abuse is important | 1 (0.2) | None | 10 (1.7) | 114 (19.8) | 450 (78.3) | 4.76 (±0.48) |
| Doctors have an important role in detecting and reporting child physical abuse cases against children | 1 (0.2) | 5 (0.9) | 11 (1.9) | 171 (29.7) | 387 (67.3) | 4.63 (±0.58) |
| As a doctor, you are able to detect child physical abuse case | None | 9 (1.6) | 59 (10.3) | 254 (44.2) | 253 (44.0) | 4.31 (±0.71) |
| Documenting the signs/symptoms of abuse in the patient file is important | 2 (0.3) | 6 (1.0) | 20 (3.5) | 242 (42.1) | 305 (53.0) | 4.46 (±0.65) |
| Asking the child about injuries he/she had is important | 4 (0.7) | 3 (0.5) | 48 (8.3) | 228 (39.7) | 292 (50.8) | 4.39 (±0.72) |
| Reporting physical abuse cases to legal authority is important | 3 (0.5) | 8 (1.4) | 48 (8.3) | 203 (35.3) | 313 (54.4) | 4.42 (±0.74) |
| The amount of materials presented about the topic of physical child abuse at your medical/dental school is sufficient | 70 (12.2) | 188 (32.7) | 110 (19.1) | 127 (22.1) | 80 (13.9) | 2.93 (±1.26) |
| Providing child physical abuse training in the workplace is important | 12 (2.1) | 529 (92.0) | 31 (5.4) | 194 (33.7) | 335 (58.3) | 4.47 (±0.73) |

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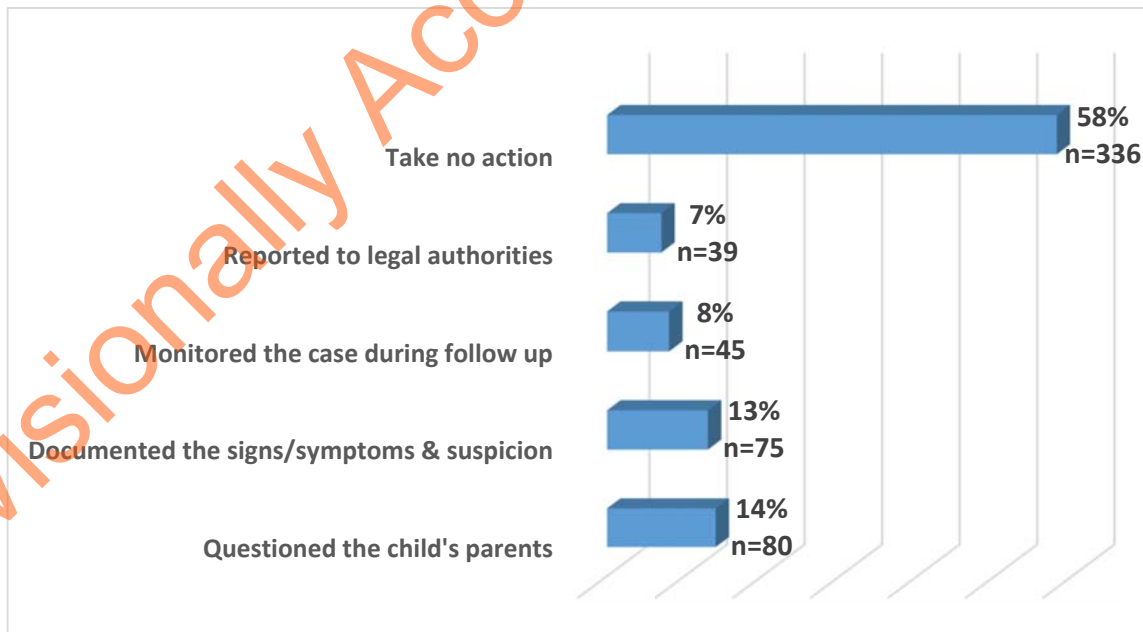
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302 **Figure 1: Distribution of doctors' opinion of main cause of underreporting**
 303 **of child physical abuse cases (Multiple responses selected).**

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308 **Figure 2: Distribution of the actions taken by doctors in suspected cases of**
 309 **child physical abuse.**