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ORIGINAL RESEARCH

Dentists and undergraduate dental students require more information relating to child abuse

Ana Rodrigues Moura,[I] Armanda Amorim,[I,II] Luís Proença,[I,II] Virgínia Milagre[I,II]

[I]Instituto Superior de Ciências da Saude Egas Moniz (ISCSEM), Campus Universitario, Caparica, Portugal [II]Centro de Investigação Interdisciplinar Egas Moniz, Campus Universitario, Caparica, Portugal

OBJECTIVE: To evaluate the preparation for, and the appropriate approach of dentists to the diagnosis of patient mistreatment.

METHOD: This investigation was conducted among sixty randomly selected dentistry students: twenty 1st year students, ten 5th year students at our institution, ten 5th year students at the Faculty of Dentistry, Lisbon University, sixteen dentists at the University Clinic of our institution, and four dentists with private offices. Students and dentists took part voluntarily. The exclusion criteria were (a) prior attendance of another degree, (b) cooperation with social organizations; and, for professionals, less than five years of experience. Data analysis was performed through descriptive and inferential statistics (chi-squared test) for a confidence level of 95%.

RESULTS: Among dentists, 38% do not know which area of the organism is the most affected, 43% know it is proper to officially report the fact; out of these, 48% know that the information may be provided anonymously. There are 47% who state that they received no undergraduate training in this area. However, 60% of the students in the last year declare they did receive training.

CONCLUSIONS: Dentists are not sufficiently familiar with the subject of child abuse. A regular approach to this matter in undergraduate education is important. It will be very useful to create a working tool unifying the criteria for screening, diagnosing, and registering such events.

KEYWORDS: child abuse; dentist knowledge; orofacial manifestations.

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E-mail: anarodriguesmoura@gmail.com

INTRODUCTION

The concept of violence as defined in the UN Convention on the Rights of the Child, according its Article 19, includes "all forms of physical or mental violence, damage or abuse, negligence or negligent treatment, mistreatment or exploitation, including sexual abuse". The United Nations Children's Fund (UNICEF) estimates that every year 3,500 children die victims of physical violence and negligence in first world countries. This is the main cause of death for children and adolescents, and occurs within all ethnicities and socioeconomic strata.[1] This United Nations organism places Portugal among the worse rated countries[2] in this regard, averaging four deaths due to physical violence and negligence for every 100,000 children. Data gathered from 2000 to 2009 by the Portuguese Statistical Institute (INE) reveals that there are 1.8 million children in Portugal under the age of 15, of which an average of 66 die each year due to violence and negligence. However, not all cases of violence are reported to the authorities. Thus these values, albeit high, may underrate reality. The World Health Organization (WHO) estimates that around 53,000 children between the age of 0 and 17 were victims of homicide during 2012. Compared to adults, children are frail, defenseless, dependent, and vulnerable. Acts of domestic violence have been frequent since antiquity.[3] Of all the children that have suffered an initial act of abuse, 35% will continue to be severely hurt and abused if no legal determination exists that will prevent the legal guardian from retaining custody, and 5% of them may actually die.[4] Child and adolescent abuse are two of the most prominent causes of death in this age group.[5] Diagnosing abuse depends on familiarity with the signs, both physical and behavioral, that are most common in children that have suffered them. Some abusive situations are still hidden in the painful silence of those who suffer them, but this may be altered by health professionals.[6–10] Of the lesions caused by child abuse, 65% exhibit signs in the face and head areas[11,12], while 25% occur around or inside the mouth and may be recognized by the Dentist.Because the mouth is often affected, aggression victims often must resort to a dentist, which places him in the frontline, as compared to other health professionals, when it comes to recognizing these situations.[13–15] A recently published study indicates

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that dentists who receive training in these matters will be five times more likely to report them than those who do not.[9]

MATERIALS AND METHODS

A total of 60 volunteers were randomly included in this study, distributed as follows: 40 students from Integrated Master in Dentistry (MIMD) and 20 dentists. Forty of these were students: twenty in the 1st year, ten in the 5th of our institution, ten in the 5th year of the Dentistry School of the Lisbon University. The twenty other volunteers are dentists, 16 with their practice in our institution's University Clinic and four in private practices. Of the included students, 63% were female and 37% were male; among Dentists these values were 40% and 60%, respectively.

The inclusion criteria were as follows: students with no prior frequency in any other course degrees or working in social care institutions, and dentists practicing professionally for five or more years. The exclusion criteria included students that had experience in other courses or had worked with social institutions and dentists with less than 5 years of professional practice. The inquiry was specifically prepared for the study with eight multiple choice questions, allowing for quick responses, easy interpretation and analysis and an adequate participation rate of entrants. The questionnaire used referred the following topics: the importance of clinical history, most injured area, the areas to be covered by the clinical exam, post-suspicion procedures, the level of information as to the anonymity of the informant, the decision to report the situation to the proper authorities and, in case no report was made, the reason for this decision. The final question touched on whether or not this subject had been broached during pre-graduate education. The PASW Statistics v.21 software was used in data analysis, by application of descriptive and inferential statistics methods (chi-squared test) for a confidence level of 95%.

RESULTS

The answers to the questions described in Methods were as follows.

> Question 1: "Can one disregard clinical history and take into account solely observation?" All students and dentists responded "No" to this question.
> Question 2: "What kind of examination should be made?" All students and dentists selected the "Intra and extra oral" option, as opposed to the "teeth" alternative.
> Question 3: "Which area do you think will be most injured in case of abuse?"

Results are displayed in Table 1. A majority of respondents marked the "head and neck" alternative, which is the correct epidemiological alternative; however arms were marked as the most likely by a high number of participants: 37% of the 1st year students, 50% of 5th year students and 38% of dentists.

Table 1 - Responses to Question 3 – Which area do you think will be most injured in case of abuse? ($p = 0.812$, chi-squared test, "head and neck" vs. other alternatives)

(%)	1st year students	5th year students	Dentists
Head and neck	52	45	43
Arms	37	50	38
Legs	0	5	0
Buttocks	11	0	19

Table 2 - Responses to Question 4 – "When coming in contact with a child who is a victim of abuse, what should you do?" ($p = 0.453$, chi-squared test, "warn the police" and "report case" vs. other alternatives)

(%)	1st year students	5th year students	Dentists
Warn the police	47	20	33
Report the case	11	50	43
Not report	0	0	0
Keep under observation	0	5	10
Talk to the parents	10	10	0
Talk to the child	32	15	14

> Question 4: "When coming in contact with a child who is a victim of abuse, what should you do?"

Results are displayed in Table 2. Regarding the procedure to use in case of suspicion of mistreatment, a majority of respondents in all three classes (58% of 1st year students, 70% of 5th year students, 76% of dentists) would either warn the police or report the case. Most other respondents selected either the "talk to parents" or "talk to the child" options. Some 5th year students (5%) and dentists (10%) would keep the child under observation.

Regarding the anonymity in case a report is made, for 84% of 1st year students, the Police would know the informant's identity, 65% of 5th year students know the report is anonymous and of all the dentists only 48% know about the anonymity (Tables 3 and 4).

> Question 5: "In case a report is made to the authorities, would it be anonymous?"

Table 3 shows that a vast majority of students, but only half of the dentists, would prefer to make an anonymous report.

> Question 6: "Upon reporting the case to the authorities, who would be privy to the informant's identity?"

Table 4 shows that most respondents believe that only the police should know the identity of the informant. But roughly one tenth of students and one quarter of dentists believe that the best course would be to make a totally anonymous report.

> Question 7: "When confronted with a child that's a victim of abuse, you would not report it for fear of . . . ?"

Only 53% of 1st year students and 65% of 5th year students would make the report; the value rises to 67% in the case of dentists. As shown in Table 5, not reporting would mainly be due to fears of a wrong diagnosis (26% of 1st year students, 30% of 5th year students and 19% of dentists). A total of 16% of 1st year students and 5% of 5th year students also

Table 3 - Responses to Question 5 – "In case a report is made to the authorities, would it be anonymous?" ($p = 0.119$, chi-squared test)

(%)	1st year students	5th year students	Dentists
Yes	79	65	48
No	21	35	52

Table 4 - Responses to Question 6 – "Upon reporting the case to the authorities, who would be privy to the informant's identity?" ($p = 0.791$, chi-squared test, "nobody" vs. other alternatives)

(%)	1st year students	5th year students	Dentists
Nobody	11	10	24
Police	84	75	62
Parents	5	15	14

mentioned fear of reprisals. A few 1st year students and dentists also referred the fear of wasting time in court as one of the reasons.

Table 6 shows that 60% of 5th year students stated that the subject was broached during undergraduate education, whereas 48% of dentists said the subject had never been talked about.

DISCUSSION

Regarding the importance of clinical history, the results obtained are similar to Josgrilberg et al,[16] where 98% of respondents recognized its importance. As to the most likely injured areas in case of abuse, the results are similar as well,[16] where only 21% of respondents correctly identified the most injured area. Regarding the type of medical exam, all answers indicated that it should be both extra and intraoral, a result that differs greatly from those of Josgrilberg et al,[16] where only 67% of respondents gave particular importance to the intraoral exam. When confronted with an abusive situation, not all of our respondents would know how to deal with it. Even so, the results obtained were higher than those of Andrade et al,[17] where the great majority (68%) wouldn't know how to follow up on the situation. Regarding this same procedure, 32% of 1st year students, after confirming the occurrence of an abuse, would start by approaching the victim or by talking to the parents/legal guardians (even if they were possible perpetrators of this abuse). Among the 5th year students, 15% would talk to the victim and 10% would approach the parents/legal guardians. As to the dentists, 14% would approach the victim, 10% would opt for keeping the child under observation in the follow-up appointments. Results were similar to other studies: Tornavoi et al[18] report that when confronted with a mistreated child, 45% would report it to the proper authorities and 37% would try to approach the parents of the abused child. A previously cited study[16] found that 29.6% of respondents would also approach the parents; Gomes et al[1] also found 29.6% of respondents who would approach parents/guardians. Carvalho et al[19] reported that none of the respondents knew how to properly follow up when confronted with a case of abuse. Regarding anonymity when reporting a case to the authorities, we found that 48% of dentists know that this can be done anonymously, a result similar to a study by the Australian Dental Association,[20] where 45% of dentists were familiar with the situation. In another study, 52% of dentists from the Australian and New Zealand Society of Paediatric Dentistry recognize this deficiency as well.[20]

Table 5 - Answers to Question 7 – "When confronted with a child that's a victim of abuse, you would not report it for fear of . . . ?" ($p = 0.238$, chi-squared test, "diagnostic error" vs. other alternatives)

(%)	1st year students	5th year students	Dentists
Being identified	0	0	0
Possible reprisals	16	5	0
Wasting too much time in court	5	0	14
Diagnostic error	26	30	19

Table 6 - Answers to Question 8 – "Was this subject broached during your pre-graduate education?" ($p = 0.727$, chi-squared test)

(%)	1st year students	5th year students	Dentists
Yes	47	60	52
No	55	40	48

The question, "Who do you believe will know your identity?" was meant to help understand if the groups under study were aware that such reports are indeed anonymous; 85% of 1st year students and 75% of 5th year students believe the Police would be privy to the informant's identity and the latter also believe the parents would be informed. As to the reason for not reporting, we found, among other motives, the fear of wrong diagnosis and also a fear of reprisals. Owais et al[21] report that the fear of a wrong diagnosis is the motive for 73% of dentists not reporting these cases. In this same study,[21] the fear that the child might suffer further because of "talking" amounted to 66%. Jessee[6] reveals that 85% of respondents also refer to lack of knowledge and diagnosis uncertainty as reasons for not reporting. In this same study, it was found that 81% of respondents prefer consulting with a colleague before reporting.[6] Doctor-patient confidentiality is also referred as a reason for not reporting, but diagnosis uncertainty still rates as a larger percentage.[20] In our study, 60% of 5th year students say the subject was broached during their education. As for dentists, 48% say they were never given any information during undergraduate education, which is not unlike the results (66%) reported by Josgrilberg et al.[16] The higher level of 1st year medical students declaring the subject was not covered is somewhat irrelevant because these students are still in an early stage of their education. Ramos-Gomez et al[22] report similar values with only 28% of students referring to school information, but 84% of these had already searched for the subject in scientific literature.[22] Gomes et al[1] concluded that 97% of students consider the subject as important, but only 34% were given training on it during their studies. In our study all participants considered the subject as important and, of the people contacted, only two refused to answer the questionnaire citing absolute ignorance on the subject.

CONCLUSION

The most affected area in cases of child abuse is not generally known to the dentists, allowing us to conclude that these have not been sufficiently trained in order to be able to trace these cases. When confronted with an abuse situation, only 43% of practicing dentists would correctly report it. We deem it urgent to contribute to the training and alerting of dentists to this subject due to their prominence in its detection and reporting to the authorities. The data obtained points to a generally unsatisfactory scenario, making it clear

that information is not effectively transmitted to dentists. Lack of knowledge on the subject in all of its facets, from injury location to the correct procedure when confronted with an abuse situation does not allow the dentist to assume his role in tracking and reporting it. This study concludes that most dentists are not sufficiently trained for diagnosing abuse nor are they reporting it to the authorities.

DENTISTAS E ESTUDANTES DE ODONTOLOGIA CARECEM DE MELHOR INFORMAÇÃO SOBRE ABUSO INFANTIL

RESUMO

OBJETIVO: avaliar a preparação dos dentistas para diagnóstico e manejo de pacientes pediátricos vítimas de abuso e maus-tratos.

MÉTODO: A pesquisa foi realizada entre sessenta dentistas ou estudantes de odontologia selecionados aleatoriamente: vinte alunos do primeiro ano, dez do quinto ano entre alunos de nossa instituição, dez do quinto ano entre alunos da Faculdade de Odontologia da Universidade de Lisboa, dezesseis dentistas da Clínica Universitária de nossa instituição e quatro dentistas com consultórios privados Eles participaram de forma voluntária e os critérios de exclusão foram: (a) atendimento anterior de um outro curso universitário, (b) a cooperação com organizações sociais. Para os profissionais, menos de cinco anos de experiência. A análise de dados foi realizada por meio de estatística descritiva e inferencial (teste do qui-quadrado) para um nível de confiança de 95%.

RESULTADOS: Os resultados mostram que, entre os dentistas, 38% não sabem qual é a área mais afetada do organismo, 43% sabem que é adequado informar oficialmente o fato; destes, 48% sabem que as informações podem ser fornecidas de forma anônima. Há 47% que afirmam não terem recebido instrução nesta área durante seus cusros de graduação. No entanto, 60% dos estudantes do último ano de declararam ter recebido tal instrução.

CONCLUSÕES: Os dentistas não estão suficientemente familiarizados com o assunto. Uma abordagem regular deste assunto em ensino de graduação é importante. Será muito útil para criar uma ferramenta de trabalho unificando os critérios para o rastreio, diagnóstico, e registrar tais eventos.

UNITERMOS: abuso infantil; conhecimento dos dentistas; manifestações orofaciais.

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