

Child abuse and dentistry: A study of knowledge and attitudes among dentists in Victoria, Australia

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Abstract

Child abuse is a disturbingly common finding in society today. In view of the high proportion of orofacial injuries seen in victims of child abuse, dentists are in a strategic position to recognize and report suspected cases.

The present study of 347 dentists in Victoria, Australia, assessed the level of knowledge and attitudes among dental professionals on the important issue of child abuse. While a high level of interest was shown by the participants towards this issue, a need for further information and training in the recognition and reporting of child abuse was seen in the survey findings.

While dentists at present are not legally mandated in all states of Australia to report suspected cases of child abuse, the dental profession is in a key position to play an active role in the identification and reporting of this substantial community problem.

Key words: Child abuse, dentists' attitudes, dentists' knowledge, orofacial trauma, reporting.

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Introduction

In recent years, the community has become increasingly aware of the problem of child abuse in society. Child abuse may be defined as an act by parents or caregivers which endangers a child's or young person's physical or emotional health or development.¹ For the purpose of child protection, the Government in the state of Victoria recognizes a

child or young person as an individual under 17 years of age.¹

Four types of child abuse may be recognized: (a) physical abuse, which occurs when a child suffers or is likely to suffer significant harm from an injury inflicted by the child's parent or caretaker; (b) sexual abuse, which is the exploitation of the child for the sexual gratification of an adult; (c) emotional abuse, which occurs when a child's parent or caregiver repeatedly rejects the child or uses threats to frighten the child; and (d) neglect, which is a failure of the parent or caretaker to provide for the child's basic needs such as food, clothing, shelter and medical attention to the extent that the child's health and development is, or is likely to be, significantly harmed.²

Section 64(1) of the *Children and Young Persons Act 1989* (Victoria) allows any person to notify any instance of suspected or known child abuse. In 1993, this legislation was amended by the Victorian Government to require mandatory reporting of suspected cases of child abuse by certain professionals when, in the course of practising their profession, they form a belief, on reasonable grounds, that a child is in need of protection from abuse. Under section 64(1A) of the *Children and Young Persons (Further Amendment) Act 1993* (hereafter referred to as the Act), individuals mandated to report suspected child abuse are nurses, doctors, psychologists, teachers, child care workers, owners and operators of child care centres, parole and probation officers, and social and youth workers. Mandatory reporting was introduced for police, nurses and doctors in November 1993 and for

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primary and secondary school teachers in July 1994. Dentists were not mandated to report child abuse. Mandatory reporting of child abuse by Australian dentists is enforced at present only in South Australia and the Australian Capital Territory.³

As a result of an increased awareness of child abuse and the introduction of mandatory reporting, notifications of suspected cases to the Victorian Protective Services increased by 38 per cent during 1993-94 with a further 19 per cent increase in 1994-95, representing about 30 000 notifications per year.⁴ An average of 120 notifications was made per working day to the Victorian Protective Services during 1995-96. While family members were the largest single source of notifications (24 per cent) of suspected child abuse, mandated professionals comprised 29 per cent, followed by others (20 per cent), agency (14 per cent), and friend or neighbour (13 per cent).⁴

Numerous studies have shown that the head and orofacial region are common sites of trauma from child abuse.⁵⁻⁸ This may be due to these areas being exposed and accessible and because the head is often considered representative of the whole being or self.⁶ A ten year study of 29 fatal cases of child abuse found a high incidence of facial injuries, with laceration of the mucosa on the inner aspect of the upper lip near the fraenum and tearing of the lip from the gingivae occurring in nearly half the cases.⁷ These types of injury may be the result of a blow to the mouth in an effort to silence a child. They have been recognized in the dental literature as pathognomonic of child abuse.⁶

Orofacial trauma was reported in 49 per cent of 260 documented cases of child abuse seen during a five year period at the Children's Hospital Medical Centre, Boston, USA.⁸ Of the 386 injuries sustained by the 260 children, 33 per cent were to the head, 61 per cent to the face (contusions, lacerations, fractures, burns and bites), and 6 per cent to intra-oral structures. The low number of intra-oral injuries recorded in comparison with the high number of head and face injuries seems inconsistent, suggesting that intra-oral injuries may be overlooked due to the presence of more obvious injuries or due to the unfamiliarity of the medical practitioner with intra-oral examinations.⁹ More recently, a review of 1248 documented cases of child abuse in Minnesota, USA, found that physical abuse cases (41.0 per cent) outnumbered sexual abuse (35.4 per cent) and episodes of neglect (23.6 per cent).¹⁰ Overall, 37.5 per cent of these cases presented with injuries to the head, face, mouth and neck. This percentage doubled, however, when physical abuse cases were reviewed alone (75.5 per cent).¹⁰

In 25 cases of suspected child abuse reported by diplomates of the American Board of Pedodontics in

1979, the principal dental injuries reported were fractures of the teeth (32 per cent), oral bruises (24 per cent), oral lacerations (14 per cent), fractures of the maxilla or mandible (11 per cent), and oral burns (5 per cent).¹¹ Furthermore, several articles have documented evidence of cutaneous bite-marks in patients subjected to child abuse.^{12,13} Bite-mark injuries are rarely accidental and are good indicators of genuine child abuse. Bite-marks can provide key evidence in identifying the perpetrator of the abuse and the dental profession can play an important role in using this information to identify an assailant.¹⁴

The reporting of child abuse by the dental profession is low, despite the prevalence of child abuse and the high number of orofacial injuries among victims.^{8,11,15,16} A survey of 1134 general dentists, oral surgeons and paediatric dentists in Massachusetts, USA, found that of the 537 respondents, 242 (45 per cent) were aware of their legal responsibility to report suspected child abuse, 149 (28 per cent) knew the name of the agency to which to report, 403 (75 per cent) saw orofacial trauma, and 45 (8 per cent) had suspected cases of child abuse in their practice.⁸ However, of the 22 suspected cases, only four cases (<1 per cent) were actually reported. The most common reason given for non-reporting was that it was difficult to confirm the suspicions.

In examining the concerns of US dentists over reporting suspected cases of child abuse, Malecz found the most common reasons given for not reporting were uncertainty about the diagnosis (41 per cent), fear of involvement in litigation (26 per cent), lack of familiarity with the signs and symptoms (19 per cent), and possible effects on the dentist's practice (6 per cent).¹¹ In 1979, Blain *et al.* concluded that if dentists were trained and more confident in their ability to recognize child abuse, more cases would be diagnosed and reported by the dental profession.¹⁶

Very little has been written in the dental literature regarding the role of the Australian dental profession in the recognition and reporting of child abuse. The aims of the present study of dentists in Victoria, Australia, were twofold:

1. To assess the current status of their knowledge and attitudes about child abuse.
2. To increase their awareness of child abuse in order to encourage the reporting of suspected cases.

Materials and methods

Study sample

The study sample was selected from Victorian dentists listed in the current mailing lists of the Australian Dental Association Victorian Branch (ADA), New Graduates group (NG), Australian Society of Endodontology Victorian Branch (ASE),

Table 1. Distribution of dentists in study

Distribution of dentists	Number of dentists (%)			
	Australian Dental Association (Vic Branch)	New Graduates	Australian Society of Endodontology (Vic Branch)	Australian and New Zealand Society of Paediatric Dentistry (Vic Branch)
Total approached	240	87	144	59
Total contacted*	168(70)	63(72)	118(82)	47(80)
No. unable to be contacted*	72(30)	24(28)	26(18)	12(20)
No. refused participation*	27(2)	4(0.6)	16(1)	2(0.4)
No completed questionnaire†	141(84)	59(94)	102(86)	45(96)

*Percentage of dentists of total dentists approached in parentheses.

†Percentage of dentists of total dentists contacted in parentheses.

and Australian and New Zealand Society of Paediatric Dentistry Victorian Branch (ANZSPD), in August 1996. Prior approval was obtained from the president of each group before contacting the dentists. Dentists who treated patients aged 17 years or younger were included in the study. Dentists who had retired, could not be contacted or had taken part in the pre-testing were excluded. If dentists belonged to more than one group they were assigned to ANZSPD, ASE, NG, ADA in that order. No dentist was included in more than one group.

A convenience sample including disproportionate stratified sampling (unequal distributions in each group) was selected. This involved over-sampling of ASE and ANZSPD groups to ensure sufficient responses to allow comparisons between groups. The sampling method used was quota sampling (non-probability stratified sample).¹⁷ Five hundred and thirty dentists (approximately 23 per cent of the 2337 registered dentists in Victoria in February 1997) were approached to participate in the study. Of these, 134 (25 per cent) could not be contacted and of the 396 dentists who were contacted, 347 participated (88 per cent). In all, 141 ADA, 59 NG, 102 ASE and 45 ANZSPD members were interviewed (Table 1). The response rates from the four groups were similar, with the highest responses in the NG and ANZSPD groups (94 per cent and 96 per cent respectively).

Survey design

As no previously validated questionnaire was available, a new survey instrument (comprising 16 open-ended or multiple choice questions) was constructed and reviewed to eliminate duplicative, biased or leading questions. The questionnaire contained two questions surveying practice characteristics; seven questions surveying the dentist's knowledge of child abuse; and seven questions which surveyed the dentist's attitudes concerning child abuse, whether they had ever suspected child abuse, and how they dealt with such suspicions. In addition, the practice post code, dentist code, group code, interview date and interviewing student code were recorded.

The questionnaire was checked for face validity and content validity. The check for face validity entailed examining the questionnaire overall to judge whether it measured what it was attempting to measure.¹⁷ The check for content validity examined each question to check that it measured what it was attempting to measure.¹⁷ This is a judgmental approach to establishing validity in that it strikes informed judges as a reasonable attempt to measure the point in question. The questionnaire was pre-tested with 20 dentists who were asked to critique the instrument for validity, confusions and misunderstandings, and to suggest additional issues.[‡] The correct responses to questions relating to the respondents' factual knowledge on child abuse were established from current literature.^{1,2,18}

Administration of survey

The questionnaires were administered in a standardized manner by seven final year dental students of The University of Melbourne in association with their research supervisor (LBM). Following the pre-testing, and throughout the survey, inconsistencies in administration were discussed and resolution was achieved by group consensus. All dentists were mailed a cover letter introducing the study and requesting their participation. This was followed up within 7-14 days by a phone call to plan a convenient time to administer the questionnaire. This required about 15-30 minutes and was conducted either in person or by telephone. The survey was conducted between September 1996 and April 1997. All participant data were coded to ensure confidentiality of information.

Data analysis

All data were coded, tabulated and recorded on an Excel[§] database. Descriptive and non-parametric statistics (chi-square) were used to analyse the independent variables. Quantitative methods and

‡A copy of the questionnaire is available on request from the corresponding author (LBM).

§Microsoft Corporation, Redmond, Washington, USA.

Table 2. Description of participating dentists

Distribution of dentists	Number of dentists (%)*				
	Australian Dental Association (Vic Branch) (n=141)	New Graduates (n=59)	Australian Society of Endodontology (Vic Branch) (n=102)	Australian and New Zealand Society of Paediatric Dentistry (Vic Branch) (n=45)	Total (n=347)
Year of graduation:					
1990-1996	0	59(100)	9(8)	4(9)	72(21)
1980-1989	51(36)	-	40(39)	17(38)	108(31)
1970-1979	52(37)	-	29(28)	17(38)	97(28)
1950-1969	39(27)	-	24(24)	7(15)	70(20)
No. of patients aged £17 years seen per week:					
>20	19(13)	3(5)	11(11)	27(60)	60(17)
11-20	32(23)	10(17)	21(20)	7(15)	70(20)
1-10	80(57)	40(60)	64(63)	10(22)	194(56)
None now, but have in past	10(7)	6(10)	6(6)	1(2)	23(6)

*Percentage of dentists of total dentists in group.

statistical procedures were employed *post hoc* as controls for extraneous variables and random errors.

Results

Background of participating dentists

Practice locations were classified by Australia Post postcodes. The majority of practices were located in central Melbourne (28 per cent) and the eastern suburbs (24 per cent), with smaller numbers from the southern (17 per cent), western (16 per cent) and northern suburbs (13 per cent). A few dentists were interviewed from Geelong and country locations (2 per cent).

Table 2 shows that over 80 per cent of participating dentists graduated after 1970; only 6 per cent graduated prior to 1960. Other than new graduates, a similar distribution pattern was seen for all groups. Children were seen in most practices studied and 37 per cent of all respondents estimated that they attended at least 11 children per week. Members of

the ANZSPD group attended more children, with over 75 per cent of them reporting they would attend 11 or more children per week.

Dentists' definitions of child abuse

Table 3 shows that nearly all dentists (88-100 per cent) identified emotional abuse and physical abuse as forms of child abuse. Sexual abuse (33 per cent) was not identified as commonly and relatively few dentists identified neglect as a form of abuse (20 per cent). The most informed responses were noted in the ANZSPD group. Signs of child abuse were divided into medical, psychosocial, and orodental (Table 3). Medical signs included cuts, bruises, broken bones and frequent medical visits. Psychosocial signs included withdrawn behaviour, behavioural changes, altered child/parent relationships, neglect and dirty clothes. Orodental signs included poor dental health and oral injuries. Nearly all respondents identified medical signs of child abuse (97 per cent) and most

Table 3. Dentists' definition of child abuse

Distribution of dentists	Number of dentists (%)*				
	Australian Dental Association (Vic Branch) (n=141)	New Graduates (n=59)	Australian Society of Endodontology (Vic Branch) (n=102)	Australian and New Zealand Society of Paediatric Dentistry (Vic Branch) (n=45)	Total (n=347)
Defined child abuse as:					
Physical	140(99)	59(100)	101(99)	45(100)	345(99)
Emotional	117(83)	51(86)	95(93)	41(91)	304(88)
Neglect	34(24)	11(19)	10(10)	14(31)	69(20)
Sexual	52(37)	23(39)	21(21)	18(40)	114(33)
Signs of child abuse given as:					
Medical†	134(95)	57(97)	101(99)	44(98)	336(97)
Psychosocial‡	115(82)	49(83)	73(72)	31(69)	268(77)
Orodental§	61(43)	17(29)	38(37)	27(60)	143(41)

*Percentage of dentists' responses of total dentists in group.

†Medical signs cited were cuts, bruises, broken bones, or frequent trips to doctor.

‡Psychosocial signs cited were withdrawn, changes in behaviour, altered child/parent relationship, neglect, or dirty clothing.

§Orodental signs cited were oral injuries, poor dental health.

Table 4. Dentists' experience of child abuse

Statement	Response	Number of dentists (%)*				
		Australian Dental Association (Vic Branch) (n=141)	New Graduates (n=59)	Australian Society of Endodontology (Vic Branch) (n=102)	Australian and New Zealand Society of Paediatric Dentistry (Vic Branch) (n=45)	Total (n=347)
'With reference to child abuse,I have/Iwould...'	yes	38(27)	12(20)	24(23)	24(54)	98(28)
	no resp.†	0	1(1)	0	1(1)	2(1)
Suspected case/s	yes	8(5)	2(3)	6(6)	11(23)	27(8)
	no resp.	0	0	0	0	0
Reported case/s	yes	135(96)	57(97)	98(97)	43(97)	333(96)
	no resp.	0	0	0	1(1)	1(0.3)
Recorded signs in patient record	yes	59(42)	33(56)	50(49)	29(64)	171(49)
	no resp.	0	0	0	0	0
Know appropriate avenues for reporting	yes	81(57)	35(59)	43(42)	27(60)	186(54)
	no resp.	59(42)	24(41)	59(58)	18(40)	160(46)
Investigate a suspected case myself	yes	67(48)	33(56)	52(52)	26(58)	178(51)
	no resp.	73(52)	26(44)	50(48)	19(42)	168(49)
Contact a doctor, colleague, dental association or children's hospital,if I suspected a case	yes	102(72)	46(76)	76(75)	37(82)	261(75)
	no resp.	39(28)	13(22)	26(25)	8(18)	86(25)
Contact health dept., police, community services,social worker, or school,if I suspected a case	yes	2(1)	1(2)	0	0	3(1)
	no resp.	138(99)	58(98)	102(100)	45(100)	343(99)

*Percentage of dentists' responses of total dentists in group.

†No resp. = no response.

also identified psychosocial signs (77 per cent). Orodontal signs were identified by less than half of the respondents (41 per cent), although statistically significantly more members of the ANZSPD group (60 per cent; $p < 0.01$) than the ADA, NG and ASE groups mentioned these signs.

Suspecting, recording and reporting of child abuse

In all, 28 per cent of dentists reported that they had suspected child abuse in one or more of their patients (Table 4). Statistically significantly more ANZSPD members (54 per cent; $p < 0.01$) than members of the ADA, NG and ASE groups reported that they had suspected child abuse on one or more occasions. Only 8 per cent of all respondents had actually reported a case, again statistically significantly

more reports were indicated by ANZSPD members (23 per cent; $p < 0.01$). Almost all dentists (96 per cent) said they would record signs of child abuse in their records, although some would not include the actual term. Almost half the respondents (49 per cent) said they knew appropriate avenues for reporting child abuse and that they would investigate the matter themselves which could include (for 51 per cent) contacting a doctor, colleague, the dental association or the children's hospital, or (for 75 per cent) contacting a social worker, police, the child's school, community services or the health department. Among ADA and NG groups, 1-2 per cent of dentists reported that they would ignore a suspected case.

A large number of participants chose not to respond to four questions on their experience of child abuse (Table 4). A total of 46 per cent (including

Table 5. Dentists' attitudes towards reporting of child abuse

Statement	Response	Number of dentists (%)*				
		Australian Dental Association (Vic Branch) (n=141)	New Graduates (n=59)	Australian Society of Endodontology (Vic Branch) (n=102)	Australian and New Zealand Society of Paediatric Dentistry (Vic Branch) (n=45)	Total (n=347)
'In reporting child abuse I would consider...'	yes	35(25)	15(25)	25(25)	14(31)	89(26)
	no resp.	16(11)	5(9)	9(9)	4(9)	34(10)
Patient confidentiality	yes	115(82)	52(88)	90(88)	40(89)	297(86)
Possible effects on my practice	yes	29(21)	12(20)	16(16)	7(16)	64(18)
Uncertainty about diagnosis	yes	71(50)	28(48)	41(40)	26(58)	116(48)
Fear of litigation	yes	123(87)	45(76)	77(76)	36(80)	281(81)

*Percentage of dentists' responses of total dentists in group.

Table 6. Dentists' knowledge of child abuse

Statement	Response given (and correct response)	Number of dentists (%) [*]				
		Australian Dental Association (Vic Branch) (n=141)	New Graduates (n=59)	Australian Society of Endodontology (Vic Branch) (n=102)	Australian and New Zealand Society of Paediatric Dentistry (Vic Branch) (n=45)	Total (n=347)
'I think that...'	Yes (incorrect) [†]	69(49)	31(52)	50(50)	17(38)	167(49)
	No (correct)	39(28)	17(29)	26(25)	20(44)	102(29)
	Don't know	33(23)	11(19)	26(25)	8(18)	78(22)
'Dentists are legally required to report child abuse in Victoria'	Yes (incorrect) [‡]	63(45)	20(34)	45(45)	20(45)	148(43)
	No (correct)	26(18)	13(22)	27(26)	19(42)	85(24)
	Don't know	52(37)	26(44)	30(29)	6(13)	114(33)
'Dentists can be called in front of Children's Court to give evidence of child abuse'	Yes (correct) [‡]	109(77)	44(75)	73(72)	30(67)	256(74)
	No (incorrect)	1(0.7)	2(3)	1(1)	2(4)	6(2)
	Don't know	31(22)	13(22)	28(27)	13(29)	85(24)
'Identity of a dentist reporting child abuse remains confidential'	Yes (correct) [‡]	63(45)	26(44)	42(41)	23(52)	154(44)
	No (incorrect)	7(5)	0	6(6)	2(4)	15(4)
	Don't know	71(50)	33(56)	54(53)	20(44)	178(52)

^{*}Percentage of dentists' responses of total dentists in group.

[†]Correct response for question is based on Badger.¹⁸

[‡]Correct responses for questions are based on *Reporting Child Abuse*.¹

58 per cent of ASE members) gave no response as to whether they would investigate a suspected case themselves; 49 per cent gave no response as to whether their course of action would be to contact a doctor, colleague, the dental association or the children's hospital; 25 per cent gave no response to whether their course of action would be to contact the health department, police, community services, a social worker or the child's school; and 99 per cent gave no response to whether they would ignore a suspected case.

Attitudes towards reporting child abuse

Table 5 shows that the main factors appearing to influence a dentist's decision to report a case of suspected child abuse were uncertainty about diagnosis (86 per cent), and possible consequences to the child, both adverse and favourable (81 per cent). Factors which few dentists commented on as influencing their decision were patient confidentiality (26 per cent), possible effects on their practice (10 per cent), and fear of litigation (18 per cent). Almost half the dentists (48 per cent) commented that possible consequences to the family would influence their decision. Group responses differed with statistical significance only with reference to considering the possible effects on the child's family (a significantly more important factor for the ANZSPD group than for NG or ASE groups; $p < 0.01$), and possible effects on the child (a significantly more important factor for the ADA group than for NG or ASE groups; $p < 0.05$).

Knowledge of child abuse

All groups appeared to have limited knowledge on the prevalence of child abuse in particular socio-economic groups (Table 6). The correct answer of

'no' was given by 44 per cent of the ANZSPD group, which was a statistically significantly higher response rate than for the ADA, NG and ASE groups ($p < 0.05$). A low proportion of dentists (24 per cent) knew that dentists are not legally required to report child abuse in Victoria, with statistically significantly more members of the ANZSPD group than other groups answering this question correctly ($p < 0.01$). A high proportion of dentists (74 per cent) knew that they could be called in front of the Children's Court to give evidence, but only 44 per cent knew that the dentist's identity remains confidential at the initial reporting of a case.

Requests for further information

Most respondents (79 per cent) wanted more information regarding child abuse (Table 7), with almost all (93 per cent) requesting written information, particularly on reporting procedures (72 per cent overall, and 82 per cent of new graduates), and legal aspects (61 per cent overall, and 71-72 per cent of ASE and ANZSPD members). In response to these requests, a copy of a government publication on child abuse¹ was sent to all participants.

Discussion

This study of dentists in Victoria has identified clearly their strong interest in the subject of child abuse. This was evident in the high response rate of the participants, and in the demand from 79 per cent of respondents for further specific information. It is acknowledged that a convenience sample of city (Melbourne) and suburban dentists rather than a stratified random sample was used. However, the distribution of the dentists surveyed covered all geographic areas fairly evenly with 28 per cent of

Table 7. Dentists' requests for further information

Distribution of requests	Number of dentists (%)*				
	Australian Dental Association (Vic Branch) (n=141)	New Graduates (n=59)	Australian Society of Endodontology (Vic Branch) (n=102)	Australian and New Zealand Society of Paediatric Dentistry (Vic Branch) (n=45)	Total (n=347)
Requested more information	117(83)	49(83)	80(78)	29(64)	275(79)
Information requested on:					
Signs and symptoms	70(60)	25(51)	41(51)	16(55)	152(55)
Reporting procedures	82(70)	40(82)	57(71)	18(62)	147(72)
Legal aspects	63(54)	26(53)	57(71)	21(72)	167(61)
Form of information required:					
Written	112(96)	41(84)	76(95)	26(90)	255(93)
Verbal	14(12)	4(8)	4(5)	3(10)	25(9)

*Percentage of dentists' responses of total group.

the sample representing the city and 70 per cent representing the northern (13 per cent), western (16 per cent), southern (17 per cent) and eastern suburbs (24 per cent). A wide range of clinical experience as measured by years since graduation was represented among the respondents, and the overall sample included clinicians whose practices were attended regularly by children and those more likely to see children with trauma (paediatric dentists and endodontists). It should also be noted that although each dentist was entered only once into the study, many dentists would have belonged to more than one group (for example, held membership in both the ADA and ASE).

It is recognized that a behavioural study examining knowledge and attitudes and conducted in the manner in which this study was performed has several limitations, which have an impact on the conclusions that can be drawn. Firstly, despite preparatory training and periodic review, interviewer bias and variability between interviewers in administering the questionnaire may have elicited differing responses from the respondents, particularly for open-ended questions. Secondly, the attitudes expressed by respondents may not reflect their real response when dealing with an actual case of child abuse. Thirdly, the design of the interview required spontaneous responses; given enough time and encouragement, respondents may have been able to provide more detailed replies and demonstrated a better knowledge.

The knowledge of child abuse demonstrated by the respondents in this study is of particular interest. Overall, most respondents were well able to define child abuse in terms of physical and emotional aspects (88-99 per cent), and provide psychosocial and medical signs of child abuse (77-99 per cent). Most respondents (75 per cent) could identify the health department, community services, police, social worker or the child's school as correct avenues for reporting a suspected case. Most respondents

(74 per cent) knew that they could be called in front of the Children's Court to give evidence of child abuse.

However, in spite of these demonstrations of knowledge, the respondents were not well informed in a number of major aspects of the topic and demonstrated a marked lack of knowledge. In all four groups, few respondents included neglect (10-31 per cent) or sexual abuse (21-40 per cent) in their definition of the condition. Neglect is a subtle form of child abuse and may not have been considered by some respondents as a form of abuse. The omission of sexual abuse may have been due to respondents feeling uncomfortable with the subject. With the exception of the ANZSPD group (60 per cent), surprisingly few dentists (29-43 per cent) included orodental findings among the signs they mentioned for the condition. This is in agreement with a previous report which showed that although extra-oral head and neck injuries were frequently reported signs of child abuse, intra-oral signs were reported in considerably fewer cases.⁸ Few respondents (25-44 per cent) were aware that current epidemiological reports of child abuse indicate that it is not more prevalent in particular socio-economic groups and that the scope of the problem knows no social, educational or financial boundaries.¹⁸ With reference to dentists reporting suspected cases, less than half (49 per cent) knew appropriate avenues for reporting, only 18-42 per cent were aware that they are not legally required to report a case, and that their identity remains confidential (41-52 per cent correct responses). These observations show an improvement over those of Becker *et al.* who reported in 1978 that only 28 per cent of respondents in their survey of 1134 general dentists, oral surgeons and paediatric dentists knew the name of an appropriate referral agency.⁸ In view of the likelihood of intra-oral lesions accompanying child abuse, and the responsibility of the dental profession for the diagnosis and management of intra-oral conditions, it is surprising and

regrettable that dentists were not included as mandated professionals in the Act.

This lack of knowledge was demonstrated further by the high proportion of respondents in each group choosing not to provide a response to questions concerning their management of a suspected case, such as whether to contact a doctor, dental association or children's hospital (42-52 per cent non-response); whether to contact the health department, community services, police, social worker or the child's school (18-28 per cent non-response); or whether to investigate themselves (41-58 per cent non-response). The lack of knowledge was also demonstrated by the high proportion of respondents in each group who did not know (indicated by selecting the 'don't know' option) the correct responses to four questions. Between 18 per cent and 25 per cent of respondents indicated they did not know if child abuse is more prevalent in particular socio-economic groups; 13-44 per cent did not know if they are required legally to report a suspected case; 22-29 per cent did not know if they can be called in front of the Children's Court to give evidence; and 44-56 per cent did not know if the identity of the reporting dentist remains confidential. Clearly, all such issues must be addressed in future training programmes for the dental profession, at all levels of undergraduate, postgraduate and continuing professional dental education.

In comparing responses between the four groups, members of the ANZSPD appeared to be more knowledgeable in some aspects than those in the ADA, NG and ASE groups, particularly with reference to reporting, in that smaller percentages of this group failed to provide responses or selected the 'don't know' option on questions. This was attributed in part to their relatively greater personal experience of the condition (54 per cent ANZSPD members had suspected a case and 23 per cent had reported a case, compared with 20-27 per cent suspicion and 3-16 per cent reports for ADA, NG and ASE groups). In addition, approximately 60 members of ANZSPD in Victoria had attended a half-day seminar on child abuse in 1995, which could have increased the knowledge of some respondents.

Respondents in all four groups demonstrated similar attitudes towards the reporting of a suspected case of child abuse, indicating that certainty of diagnosis (82-89 per cent affirmative responses) and possible effects on the child (76-87 per cent) would be paramount considerations for them, while possible effects on their practices (9-11 per cent) and fear of litigation (16-21 per cent) would be minor considerations. These observations demonstrated that the respondents would be willing to report and act on a suspected case, provided they were confident of the diagnosis. Uncertain diagnosis by dentists was identified by Malecz in 1979 as the most common

reason for not reporting suspected cases,¹¹ and it appears that almost twenty years later this issue is still to be addressed adequately by improved knowledge and training. Of concern, several respondents commented that lack of trust in the ability of some agencies to handle sensitive cases would affect their decision to report a case and make them reluctant to do so. Regrettably, 1-2 per cent of respondents indicated that they would ignore a suspected case; this is considered an inappropriate response and indicates a reluctance to comply with moral obligations to report currently imposed on them.

Most recently, application of the Act governing mandatory reporting of child abuse in Victoria has been tested. On December 5 1997, the Ringwood Magistrates Court dismissed the first Victorian case of a mandated professional charged with failing to report suspected child abuse.¹⁹ In this case, a school principal was charged with failing to report that a five year old student had claimed his father sexually assaulted him. The principal was acquitted because it could not be proven beyond reasonable doubt that she had formed the 'belief' on reasonable grounds that the child had been abused. This decision indicates that the parameters of responsibility placed on mandated professionals by the Act are unclear. It was followed by a call for further training of mandated professionals to ensure that they understand the nature of their responsibilities.²⁰ While the court decision raises doubts about the effectiveness of the Act, the primary issue for both mandated and non-mandated professionals is adequate training in the recognition of the various forms of child abuse to ensure their compliance with the Act, however it is interpreted. This applies to non-mandated professionals such as dentists, because of the voluntary nature of their reporting at present. This imperative is reinforced by the present study, which clearly showed the lack of knowledge about the reporting of child abuse on the part of dentists.

Conclusion

This study of the knowledge and attitudes of dentists in Victoria about child abuse has demonstrated a poor overall understanding of the problem, despite a very high level of interest demonstrated by the respondents and a strong desire for further information about their responsibilities. In view of the high likelihood of orodental injuries occurring in association with child abuse, and the low reporting of cases by the dental profession, this study has demonstrated a clear need for dentists to receive further formal training at the levels of undergraduate, postgraduate and continuing professional dental education in the recognition and reporting of child abuse. The dental profession must become actively involved in the recognition of all types of child

abuse. Although not currently mandated in all states of Australia to report the problem, all dentists should address their professional obligation to do so when confronted with a suspected case of child abuse, and should become fully aware of the appropriate reporting procedures in their location.

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