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# The incidence and nature of complaints against dentists for the treatment of children in Israel from 1992–2011

N. Givol[1], T. Frenkel[2], N. Tickotsky[3] and M. Moskovitz[2]

*[1]Medical Risk Management Company and Medical Consultants International Ltd. of the Madanes Group, Israel; [2]Department of Paediatric Dentistry, the Hebrew University – Hadassah School of Dental Medicine, Jerusalem, Israel; [3]Bar Ilan University, Ramat Gan, Israel*

***Objectives:*** Medical literature lacks information about complaints against dentists who treat children. The present study aimed to evaluate the reports filed to Medical Consultant International (MCI) regarding paediatric dentistry in 1992–2011. ***Basic research design:*** Most dentists in Israel (85%) are obliged by their professional liability insurance policy to report adverse events to MCI. Reports were analysed using a structured form that included demographic details of the treating dentist, patients and parents, type of treatment, the result and the dentist's attitude. MCI dental consultants' decisions were evaluated by two specialists in paediatric dentistry. ***Results:*** The number of complaints per year is increasing. Complaints involved maltreatment (33%), case mismanagement (25%) and complications that required additional treatment (26%). Communication was problematic in 60% of cases. Only 16.7% of complaints developed into an actual lawsuit. Most complaints were against female general practitioners and against dentists who worked in community dental clinics located in peripheral areas. Treating permanent teeth increased to 3.6 times the probability of developing into a lawsuit. 59% of event records had missing data. Seventy-five percent of the cases rose from elective treatments while 25% concerned emergency treatments. One third of the cases required additional treatment in a hospital i.e. abscess drainage, foreign body swallowing or other physical damages. ***Conclusions:*** Better case selection and documentation, better training of dentists who treat children and more appropriate attitude toward patients and parents, are likely to reduce the number of complaints.

**Key words:** *risk management, insurance, malpractice, pediatric dentistry, liability, Israel*

## Introduction

The concept of risk management is based on the principle that risk can be managed, reduced or prevented. The main target of risk management in hospitals is increasing the safety of treatment for the patients (Abbott *et al*., 2005). A safer treatment with less adverse results will reduce the costs of compensation in case of litigation. The need for a risk management program began as a response to the increase of alleged malpractice litigation (Graskemper, 2002). From the point of view of health providers there is also a risk for the medical team. For hospitals and professional liability insurers, it is the financial risk that is of primary concern; to individual practitioners the substantial risks are emotional stress and potential damage to professional reputation. Clinicians have to predict the obstacles, risks and complications that may develop during interaction with the patient. One of the strategies to avoid adverse events is learning from previous events and working according to a risk management program (Hills, 1990).

Providing dental treatment to children and adolescents raises particular risk management issues:

- From a legal point of view a patient that is younger than eighteen years of age is not entitled to offer consent as this is the role of the parents or legal guardians, providing they understand the diagnosis, treatment options and risks.
- Often a third party (a parent/guardian) is observing (and interpreting) treatment procedures.

The child or adolescent patient presents behavioural and physiological differences from healthy adults, i.e., resistance to treatment, unpredicted responses, need for treatment under sedation or general anaesthesia etc. These behaviours may increase the risk of adverse treatment outcome.

Events of malpractice not alleging negligence could better be described as "professional liability" cases. In those occasions the patient demands compensation for a damage that is not due to negligence (Carmi, 2003).

Studies on the topic of risk management in dental care for children are scarce. One study was held in the USA between 2004 and 2006 and included 376 malpractice reports related to dentistry for 0-19 year old children (Thikkurissy and Casamassimo, 2008). In Israel two studies on risk management in adult patients were conducted, one concerned implant dentistry and the other endodontics (Givol *et al*., 2002; 2010). Around 650 new reports of potentially problematic dental care are filed to Medical Consultant International Company (MCI) in Israel every year, 14% of them are related to children's dental treatment. Reports are filed by patients' parents, lawyers or by the dentists as most dentists in Israel (85%) are obliged by their professional liability insurance policy to report adverse events to MCI. The aim of the present study is to evaluate the reports filed to Medical Consultant International Company (MCI) regarding dentistry for children in the years 1992 to 2011. To the best of our knowledge this is the first attempt to analyse the risk factors associated with complaints in paediatric dentistry.

Correspondence to: Dr Moti Moskovitz, Department of Pediatric Dentistry, Hadassah School of Dental Medicine, P.O.Box 12272, Jerusalem 91120, Israel. Email: motim@md.huji.ac.il

## Materials and Methods

The study was carried out as collaboration between the department of paediatric dentistry, the Hebrew University's Hadassah School of Dental Medicine and MCI. MCI had been given power of attorney from its insurers to manage their liability insurance reports. The inclusion criteria were reports that contain medical and legal records referring to dental treatment in children. Dates were captured without revealing any identifying details. Reports were excluded due to: lack of data, treatment carried out by several dentists, hygienists or by specialists other than paediatric dentists. Reports were analysed using a structured form that included demographic details of the treating dentist, patients, and parents, quality of medical records, quality of x-rays taken, kind of treatment and the outcome and dentists' attitudes. The reports were divided into three types: reports that developed into a claim; reports filed by dentists; and reports filed by parents or lawyers.

MCI dental consultants' decisions were assessed according to financial risk- bearing. In addition, the reports were evaluated by two specialists in paediatric dentistry who evaluated whether malpractice had occurred. Malpractice assessment criteria were based on the dentist's conduct from the diagnosis stage through the entire treatment.

Data were analysed using the SPSS v.17.0 tools Fisher's Exact Test, Pearson Chi-Square, Logistic Regression and One-way ANOVA with significance set at $p \leq 0.05$.

Out of 200 reports, 168 met the inclusion criteria and were analysed according to the following: characteristics of dentists, dental clinic and patients, quality of communication, dental records and types of treatments.

## Results

The number of complaints has increased from 9% of cases in the period between 1992 and 1996 to 33.5% in 2002-2006 and 32.3% in 2007-2011 (Figure 1).

Regarding dentists' characteristics, most complaints, 71% (118/165) and 89% (147/166), respectively were against female and against general practitioners. Nineteen dentists had more than one complaint (with a maximum of four per dentist). Dentists' experience ranged from 2 weeks to 30 years (mean 9, median 8, SD 8 years). Twenty-three complaints (14%) were against dentists with professional practice of less than a year.

The dental clinics with most complaints were public clinics and clinics located in the periphery of the country, with 74% (123/167) and 58% (97/166) of the complaints, respectively.

Poor dentist-patient communication was found in 60% (79/130) of the reports and was due to: misunderstanding, 28% (38/131); poor dentist attitude, 21% (27/131); poor dentist availability, 5% (7/131); and treatment under general anaesthesia, 5% (7/131).

Regarding patients' characteristics, 48% of treated children were girls and 52% were boys. Age range was 1.5-16 years (mean 7, median 6, SD 3 years). Fifty percent of the complaints concerned children younger than 6 years of age and 65% children younger than 8 years old. In 93% (154/165) of the reports the child was healthy. Seventy-two percent of the complaints concerned deciduous teeth.

Concerning the quality of dental records, 59% (83/141) of event records had missing data, e.g. diagnosis, dosage and kind of the local anaesthetics used during the treatment, restorative material, explanations and instruction given to the parents, degree of cooperation of the child during the treatment. Diagnostic radiographs were missing in 32% (40/125) of cases; 60% (24/125) of them were not performed due to lack of patient cooperation. Informed consent was missing in 12% (19/162) of cases.

The treatments referred to in the reports consisted of 28% (47/165) extractions, 18% (30/165) dental pulp treatments and 7% (12/165) general anaesthesia. Elective treatments accounted for 75% of referred cases while 25% (47/165) concerned emergency treatments. A third of the cases (53/167) required additional treatment in the hospital i.e. abscess drainage, foreign body swallowing or other physical damage. Physical injury occurred in 24% (41/168) of the cases comprising: systemic complications, 18; laceration, 8; infection, 6; burns, 4; swelling,4; cornea tear as a result of amalgam remnants,1. Tooth loss was involved in 27% (46/168) of the complaints. Causes for complaints are described in Figure 2.

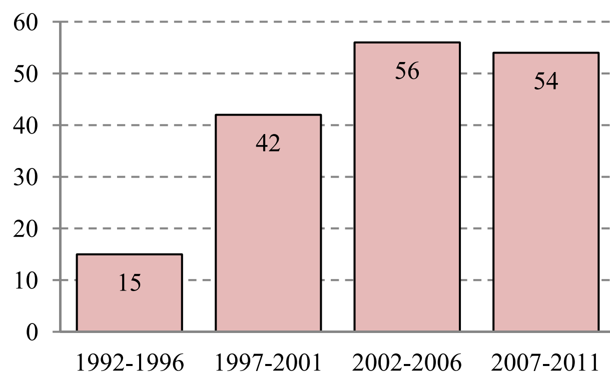


**Figure 1.** *Number of complaints per 5 year periods*

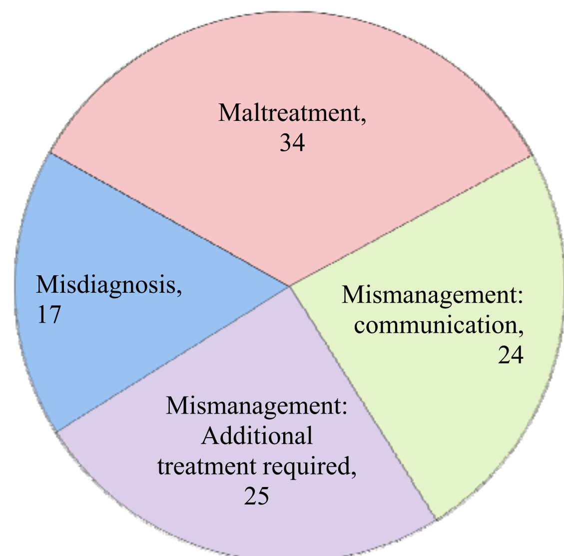


**Figure 2.** *Causes for complaints: rounded percentages by category.*

The characteristics and fate of the reports received by MCI are described in Tables 1 and 2, respectively.

Logistic regression analysis demonstrated that treatment of permanent teeth, lawyer involvement and late reports were significantly associated with the risk for lawsuits ($p<0.01$). The odds ratio for each factor is listed in Table 3. For indefensible cases, misconduct cases increased to 24 times the odds of the dentist to be legally indefensible.

There was an association between malpractice and not performing diagnostic radiographs, misdiagnosis, lack of informed consent, tooth loss or a need for continuous treatment ($p<0.02$). The dentist was legally indefensible when diagnostic radiographs were not taken, and/or there was misdiagnosis, maltreatment and malpractice ($p<0.002$). Not having informed consent was associated with malpractice.

There was also an association between dentists initiating a report, good communication skills, complete medical records and immediate post treatment report ($p<0.003$). In these cases, most dentists were found to be legally defensible.

Reports that did not turn into lawsuits were related to termination or to a pause in the legal process. A pause means the process was not continued for some reason yet was not officially terminated. The range of settlement sums was 53$ to 485,714$ (mean 17,289$, median 2,650$).

The association between extraction and inexperienced dentists and treatment under general anaesthesia (GA) was significant ($p<0.006$). Poor communication circumstances like inadequate dentists' attitude and treatment under GA were found to be significantly related to veteran dentists ($p<0.04$). No association was found between dentist seniority and the quality of medical records.

**Table 1.** Characteristics of reports received by MCI

| *Characteristic* | *%* | *n* |
|---|---|---|
| Initiated by patient | 68 | (112/165) |
| Timing: within 6 months of the event | 70 | (114/165) |
| Involved a lawyer | 30 | (44/145) |
| Involvement of the Ministry of Health | 17 | (28/163) |
| Dentist was legally indefensible | 51 | (67/131) |
| Malpractice established | 53 | (90/168) |
| Initiated by dentist | 16 | (27/166) |
| More than 6 months after the event | 30 | (51/165) |

**Table 2.** The outcome of the reports received by MCI

| *Outcome of the reports received by MCI* | *%* | *n* |
|---|---|---|
| Settlements | 47 | (68/145) |
| Rejected | 30 | (44/145) |
| Halted | 23 | (33/145) |

**Table 3.** Relative risks of situations developing into lawsuits

| *Situation* | *Odds Ratio* |
|---|---|
| Lawyer involvement | 5.0 |
| Treatment of permanent tooth | 3.6 |
| Late report | 2.9 |

## Discussion

As the number of complaints per year is increasing, the current study aimed to characterise dentists' and child/parent profiles that are liable to develop into lawsuits.

Women dentists were involved in the majority the cases yet according to the Israeli central bureau of statistics women were 39% of Israeli dentists in Israel in 2012. As the public clinics dominate in the reports, a probable assumption is that women are dominant in public clinics- but this kind of information was not available to us.

Most of the dentists in the study were general practitioners, not specialists. This is in accordance with fact that, as of 2012, there were only 82 specialists in paediatric dentistry in Israel (Health Professions Workforce, 2012).

The number of lawsuits correlated with the dentists' years of experience; in most of the reports the dentist was inexperienced, and lack of experience has been shown to increase the likelihood of errors (Rattan and Tiernan, 2004).

Malpractice characterised 53% of the cases; only 33% of the cases were treatment related, as opposed to misdiagnosis and mismanagement. These findings are different than those of a US study, where the main cause for malpractice (52%) was treatment related (Thikkurissy and Casamassimo, 2008).

Poor dentist-patient communication was found in over half the reports: communication problems have a prominent role in initiating malpractice actions. Even where no error occurred, perceived lack of caring and collaboration were associated with litigation (American Academy of Pediatric Dentistry, 2011). Communication in paediatrics is complex because of parents' involvement in much of the decision-making and delivery of care (Feigal, 2001), e.g. there are times where the parent may not comprehend the rationale for a behaviour management technique. An uninformed parent may perceive even a standard procedure such as rubber dam application as threatening to their child (Hills, 1990). For this reason giving detailed explanation and having informed consent are of major importance.

Senior dentists were found to be associated with poor communication. This finding may be explained by the discrepancy between the more paternalistic management techniques they were taught and the more modern approach.

A common finding in the reports was incomplete medical records. Accurate medical records are imperative for an affirmative defence to a lawsuit. All patient treatment records should contain details on the kind of treatment performed, the purpose of treatment and follow-up instructions that may be used for legal defence even after years have passed (Hills, 1990). Most of the reports that evolved into complaints were submitted after a delay; this finding reinforces the importance of complete record keeping, as human memory is unreliable.

Failure in performing radiographs was found to be associated with malpractice and an indefensible dentist. Diagnostic radiographs were not performed in about one third of the reports mainly due to lack of child cooperation: this corresponds with the fact that most of the dentists were new to the profession and thus inexperienced. The recommendation is for a general practitioner to refer a patient to a specialist if he is incapable of managing the child. Not referring the child to a specialist when needed is considered a negligent behaviour and may lead to malpractice condition if poor outcomes result from this delay of referral (Dym, 2008).

Missing evidence of informed consent was found to be associated with malpractice. Informed consent, according to the Israeli Patient's Rights Act, 1996, can be obtained verbally. Specific informed consent should be obtained for using medication or physical restrain in the course of the treatment. Studies indicate that informed parents show a higher level of approval of behaviour management techniques than uninformed parents (Clair, 1995).

While most of the reports involved treatment of primary teeth, treatment of permanent teeth was found to be associated with more complaints. This finding is similar to the conclusion of the study of risk management in implant dentistry that found patients tend to file lawsuits mainly when the treatment ends in permanent body damage (Givol *et al*., 2002).

Emergency treatment was delivered in a quarter of the reports. A higher degree of anxiety is associated with greater sensitivity to nociceptive stimulation, more acute pain and less tolerance to chronic pain (Ramos-Jorge *et al*., 2013). Dentally anxious individuals are more dissatisfied with dental care then their non-anxious counterparts (Newsome and Wright, 1999).

Approximately half of the reports ended in financial compensation without involvement of the court of law. Both the dental practitioner and the insurance company have an incentive to end the report in this way. When the court of law is involved, the dentist suffers bad publicity that might harm his professional reputation and income. Considering the fact that court decision is unpredictable and that courts tend to reward plaintiffs even when no true negligence can be proved (Hills, 1990), for an indefensible case the insurance company prefers a pre-trial settlement.

The limitations of this study are similar to those of any closed claims analysis, as it does not represent the whole dentist population who treat children in Israel but only the dentists who are at risk for being sued.

## Conclusions

Incomplete medical records, failure to take radiographs and not having informed consent were all associated with malpractice. While time pressure in public clinics may be the main reason for their inadequate function, dentists working in such environments should be aware of the increased risk for lawsuits.

Better case selection and better training of dentists who treat children, in addition to adequate case documentation and proper attitude toward patients and parents, plus referring the child to a specialist when needed, are all likely to reduce the number of complaints.

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