

Dental malpractice cases in South Africa (2007-2016)

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SUMMARY

Introduction

Malpractice complaints against oral health professionals (OHPs) are increasing globally, and include breach of confidentiality, failure to obtain valid informed consent, issuing fraudulent medical certificates, claiming for services not rendered and violating regulations governing the dental profession.

South African dentists were most commonly charged with clinical complaints (59%) whilst 29% of dental cases and 46% of dental therapist cases were for fraud.

Aims

To analyse the nature and outcome of malpractice by OHPs as reported by the Health Professions Council of South Africa (HPCSA)

Methods

A cross sectional descriptive survey of the data between 2007–2016.

Results

118 cases and 198 counts of dental malpractice were identified, predominantly by dentists (74.6%), then specialists (17%) and dental therapists (11%). Males recorded 77.1% of complaints, Gauteng practitioners, 53.4%, and 53.8% were OHPs who had worked for 10 years or more. Approximately a third (37%) of the OHPs had more than one count of malpractice. Mean ages for independent practice were calculated.

Fraud, clinical misconduct and unprofessionalism constituted 66.7%, 23.2% and 10.1% of all counts of malpractice respectively, while there were significant differences between the involved dentists and dental therapists.

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ACRONYMS

DOH:	Dental Therapy and Oral Hygiene Board
MDB:	Medical & Dental Board
OHPs:	Oral Health Professionals
PCC:	Professional Conduct Committee

Conclusion

Fraud remains the most serious and ever increasing form of malpractice among Oral Health professionals.

Keywords

Dental malpractice, HPCSA, misconduct, oral health professional.

INTRODUCTION

Malpractice claims against Oral Health Professionals (OHPs) are on the increase worldwide.¹⁻⁴ Malpractice encompasses breach of confidentiality, failure to obtain valid informed consent, issuing fraudulent medical certificates, claiming for services not rendered and violating regulations governing the dental profession.⁵

The major cause of malpractice is a failure to adhere to norms and standards of the profession, and a failure to achieve the desired therapeutic goals that are commonly accepted and rendered by peer practitioners.²

The literature records considerable variation in clinical malpractice claims lodged against OHPs. In the Netherlands, Turkey, Saudi Arabia, Spain and United States of America (USA), the clinical discipline most frequently implicated is oral surgery.^{3,4,6-8} In contrast, in Kerman province in Iran, the highest number of clinical complaints are in endodontics, followed by prosthodontics, operative dentistry and oral surgery.² According to Postma, et al.⁹ a similar distribution of implicated clinical disciplines was recorded in South Africa (SA).

The study also showed that fraud was the leading form of malpractice laid against dental therapists (46%), and accounted for 29% of malpractice claims laid against dentists.⁹ In most instances potential malpractice suits are settled between OHPs and the patients. In the absence of an amicable solution, patients normally report their complaints to the Health Professions Council of South Africa (HPCSA) or, rarely, lodge a civil malpractice suit.¹⁰

While anecdotal evidence points to a rising incidence of malpractice in SA, there has not been any scientific study in the past 10 years. Hence this project which sets

out to investigate the nature, frequency and outcome of malpractice amongst OHPs as recorded by the Health Professions Council of South Africa (HPCSA).

The findings could inform curriculum changes, for example practice management and ethics modules. For the regulator, the findings will serve as evidence during engagement with health professionals.

METHODOLOGY

Study design and sampling

A retrospective cross sectional survey was undertaken on the records of claims of malpractice against Oral Health Professionals (OHPs) published by the Medical & Dental Board (MDB), and the Dental Therapy & Oral Hygiene Board (DOH) over the period, 2007-2016. These records included all malpractice cases finalised by the Professional Conduct Committee (PCC) of the HPCSA.¹¹⁻¹³ No sampling and sample size determination were undertaken, as all available and complete records were included in this study.

Ethics

Ethical clearance to conduct this study was granted by The Sefako Makgatho Health Sciences University Research Ethics Committee (SMUREC) (SMUREC/302/2016: PG). Further approval was granted by the HPCSA to access data for this study. Anonymity and confidentiality was observed throughout.

Data collection and data collection tool

A specially designed data abstraction form was utilised to collect data on the (i) demographic profile of the oral health professional; (ii) academic and professional details, (iii) nature, frequency and outcome of malpractice. Data were sourced from HPCSA databases including registration records and finalised cases, for 2007 - 2016. The nature of malpractice was categorised as clinical and non-clinical, and these categories were recorded as indicated below.

Clinical categories

The clinical categories were classified according to the dental disciplines in which the offence occurred, namely: (i) Operative dentistry (ii) Maxillo facial and Oral Surgery – this included exodontia complications and failure of implants; (iii) Prosthodontics; (iv) Oral Medicine and Periodontology; (v) Orthodontics and (vi) not specified (no indication of the nature of clinical department).

Non-clinical malpractice complaints

Non-clinical malpractice complaints were categorized as fraud and unprofessionalism.

(a) Fraud

Fraud included all activities bearing monetary benefit to the OHPs such as claiming for services not rendered, employing an unregistered person(s) and practising out of the prescribed scope of practice.

(b) Claiming for services not rendered

Matters related to claiming for services not rendered included, split billing, over-charging, drafting misleading, inaccurate or incorrect statements to be submitted to Medical Aids. For example, (i) knowingly providing professional cosmetic procedures which are not covered by Medical Aids; (ii) fitting a gold filling and thereafter submitting a claim to the patient's Medical Aid Scheme as a direct restoration. Claiming for services not rendered also included the use of dental practitioner codes either by a dental therapist or by an unregistered person. The use of unlicensed radiographic machines was also included in this category.

(c) Practising out of the prescribed scope of practice

Practising out of the prescribed scope included dental therapists and oral hygienists undertaking surgical, orthodontic and prosthodontic procedures, whilst for dentists the category included performing implant procedures without adequate training.

(d) Unprofessionalism

Unprofessionalism encompassed not acting according to the norms and standards as set out by the profession. Unprofessionalism included poor record keeping, failure to obtain informed consent, poor infection control measures, poor communication, lack of confidentiality, failure to honour patient appointments for follow up treatment, failing to ensure that the patient was attended by another practitioner in your absence, advertising in contravention to the HPCSA guidelines, being in Contempt of Council by failing and/or neglecting to respond to Council correspondence and practising whilst not registered or suspended from the HPCSA register.

Statistical analysis

Descriptive and inferential statistical analyses were undertaken using SPSS version 24. Descriptive statistics determined the nature, frequency and outcome of malpractice, as well as enumerating the demographic profiles of the OHP's. Analysis of variance (ANOVA) and Student's *t* test were used to compare the means between groups, as well as to compare the duration of independent practice before the offence was committed, in relation to the profession and gender and the nature of the malpractice. The association between the category of OHPs and the nature of malpractice committed was evaluated using the Chi-square test. The level of statistical significance was set at $p < 0.05$.

RESULTS

The HPCSA received 26,958 complaints for processing during the study period. Excluded from the study were 47.3% ($n=12758$) of the total, constituting cases that did not include OHPs or where information was not forthcoming from the plaintiff. During this period 19% ($n=5434$) of the complaints were referred to the ombudsman, 32% ($n=8766$) cases were finalised at the preliminary enquiry stage and 1% ($n=248$) were referred to the Professional Conduct Committee (PCC) which investigated matters concerning OHPs.

Step I: Complaints are lodged by patients at the HPCSA by completing the relevant forms.

Step II: Administrators register complaints (incomplete cases referred back to the complainants).

Step III: Registered cases are either referred to the Ombudsman or preliminary enquiry for finalisation depending on their merit.

Step IV: Cases not finalised are referred to relevant Professional Conduct Committee (PCC) for finalisation (including sanctions).

Step V: All resolved cases are published as judgments on the HPCSA website.

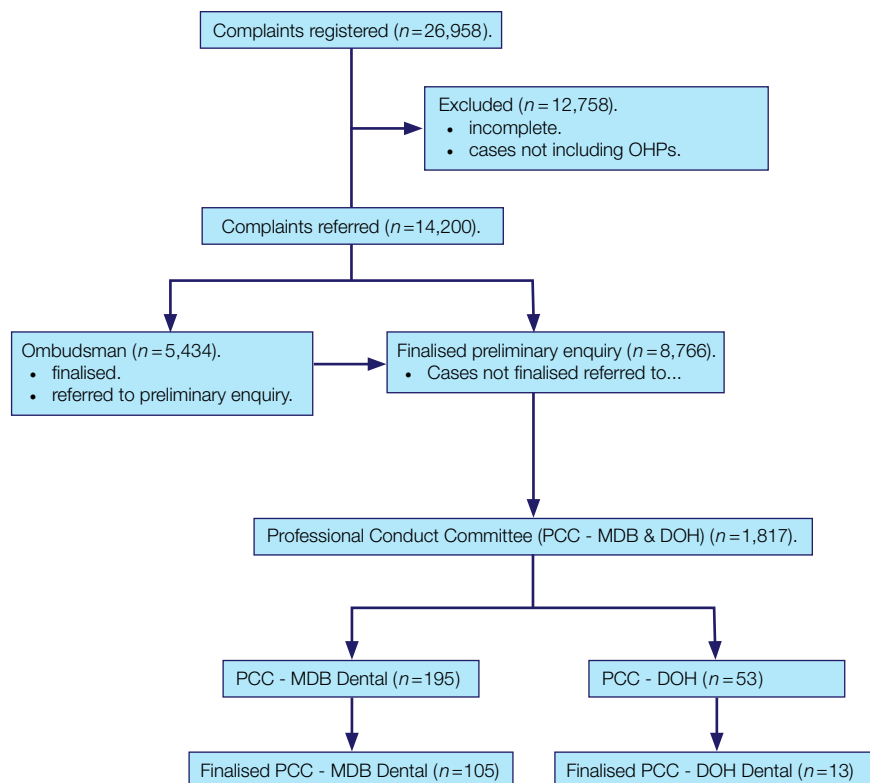


Figure 1. Overview of HPCSA complaints process.

Almost half (118/248) of these cases of dental malpractice were finalised and judgements published from 2006 to 2017 (Figure 1).

For the period 2007- 2016 the incidence of malpractice cases has remained almost constant. The PCC - MDB dental cases peaked from 2010 to 2014 whilst the PCC DOH cases showed a peak starting in 2011 and climaxing in 2014. Guilty verdicts handed down by the PPC - MDB dental showed three peaks namely in 2008, 2012 and 2014. On the other hand, the guilty verdicts delivered by PCC - DOH had a single peak in 2009 (Figure 2).

Descriptive statistics of the participants

The oral health practitioners charged by the HPCSA were predominantly dentists 76% (88/118), followed by dental specialists 14.4% (17/118) and then dental therapists 11% (13/118). Majority practiced in Gauteng province, 53.4% (63/118), were male, 77.1% (91/118), had graduated from Medunsa, (UL) 28.8% (34/118), followed by the University of Pretoria 18.6% (22/118) and the University of the Western Cape 21 (17.8%). The majority of foreign qualified dentists 93% (13/14) who had been implicated in malpractice were from universities in India.

The mean age at independent practice for dental therapists was 25.8 (SD: 4.9), for dentists 26.9 (SD: 3.9) and for dental specialists, 38.1 (SD: 5.8), these differences were significant at $p=0.000$. However, there were no significant differences in the ages of participants at the time of their first offense ($p=0.234$) (Table 2).

Dental therapists entered independent practice comparatively older, but took a shorter time to commit an offence as compared with dentists and dental specialists.

Malpractice

The majority of dentists 69.3% (61/88) and dental specialists, 94.1% (16/17) had one count of malpractice, in comparison with 69.2% (9/13) of the dental therapists who faced two or more counts. These differences were significantly different ($p=0.002$).

Nature and frequency of malpractice

Non-clinical misconduct by OHPs accounted for 77.8% (154/198) of the counts, with fraud and unprofessionalism respectively registering 66.7%, and 11.1% of all counts of malpractice. The nature of malpractice between dentists and dental therapists was statistically different ($p=0.000$) (Table 3).

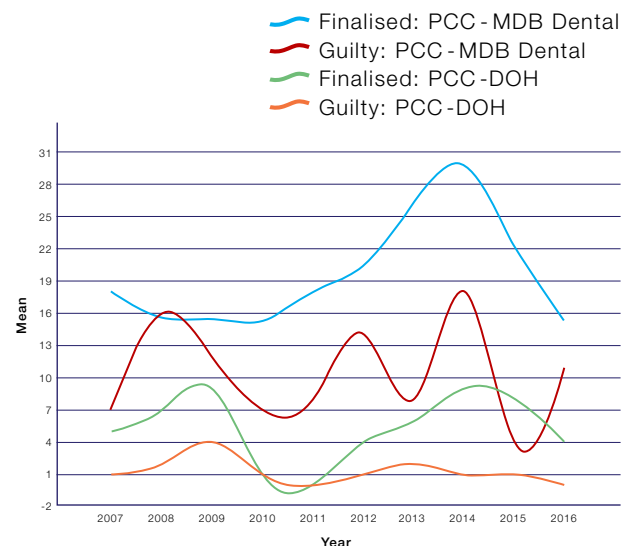


Figure 2. Cases finalised by type and dental professional board.

Table 2. Ages of the oral health professionals

Variable		Profession (%)			ANOVA	
		Dental therapist	Dentists	Dental specialists	F	P value
Age: Independent practice	Mean (SD)	25.8 (4.9)	26.9 (3.9)	38.1 (5.8)	50.459	0.000
	Minimum	20.25	20.52	31.3		
	Maximum	34.57	45.47	55.8		
Age: First offence	Mean (SD)	36.98 (9.2)	41.13 (11.94)	44.36 (9.9)	1.473	0.234
	Minimum	24.72	24.09	25.83		
	Maximum	52.29	72.41	61.47		

Table 3. Nature and frequency of the categories of malpractice complaint.

Variable		PROFESSION (%)			N
		t	Dentists	Dental specialists	Total
Clinical	Clinical negligence	0 (≈1)*	38 (26.4)	6 (31.6)	44 (22.2)
Non Clinical	Fraud	Claiming for services not rendered	80 (55.5)	10 (52.6)	120 (60.6)
		Employed unregistered person	5 (3.5)	2 (10.5)	7 (3.5)
		Scope of practice	2 (1.4)	-	5 (2.5)
	Unprofessionalism	2 (5.7)	19 (13.2)	1 (5.3)	22 (11.1)
Total		35 (100)	144 (100)	19	198 (100)

*0 approximated to 1, for statistical reasons; $X^2 = (14.59, 1, 0.00)$.

Clinically related complaints

The study shows that the majority [72.7% (32/44)] of the clinically related complaints involved maxillofacial oral surgery 27.3% (12/44), followed by endodontic therapy and prosthodontics at 22.7% (10/44) each (Table 4).

Table 4. Clinical negligence categories

Clinical negligence categories	N	(%)
Maxillo-facial oral surgery	12	(27.3)
Endodontics	10	(22.7)
Prosthodontics	10	(22.7)
Operative dentistry	4	(9.1)
Periodontics	3	(6.8)
Orthodontics	2	(4.5)
Not specified	3	(6.8)
Total	44	(100)

The preponderant complaint in Maxillo-Facial Oral Surgery: was poor pre surgical planning resulting in implants being placed in the incorrect position thereby compromising the final prosthodontic rehabilitation of the patient. For example, implants which should be placed on the alveolar ridge were positioned too high up under the lip in the gingival tissue, which is not appropriate for the necessary mechanical and biological seals. Following these complications, dentists also failed to adequately manage and to appropriately refer these patients.

Complications that arose during exodontia procedures included poor management of ankylosed teeth, broken or fractures roots, lingual nerve damage and oro-antral opening.

Endodontic therapy complaints referred mainly to the following transgressions: Failure to diagnose root perforation during the performance of a root canal treatment on the patient; failure to diagnose surgical emphysema, using unknown mixtures in a tooth as root canal medicament, failure to take post-operative radiographs and omitting to inform the patient of a fractured endodontic file.

Prosthodontic failure referred mainly to: poor clinical planning and execution of prosthodontic treatment such as delivering poorly fitting dentures of poor quality and/or workmanship, failure to achieve proper occlusion, and constructing an over-denture resulting in the loss of vitality of teeth and/or abscess.

Operative Dentistry complaints related to: poor clinical judgement when performing restorative procedures, e.g. not checking occlusion, incorrect bites.

Oral Medicine and Periodontology complaints referred to: failed surgical procedures such as gingivectomy not meeting the aesthetic needs of the patient.

Orthodontic complaints referred to: refusal to remove patient's orthodontic appliance.

Unspecified clinical complaints included: Failure to provide emergency treatment to the patient, performing complex operations which the practitioner was not sufficiently skilled to undertake and/or neglecting to refer the patient to a specialist.

Duration before committing offence

The mean time elapsed after commencing practice before a first offence was committed varied from 14.58 years (SD11.36) for dentists, 9.01 years (SD 7.4) for dental specialists to 11.22 years (SD 7.49) for dental therapists. There were no significance differences in these time periods ($p=0.113$). However, there was a significance difference between the duration of times for the genders ($p=0.030$) (Table 5).

Outcome of malpractice disciplinary hearing

Only four (3.4%; 4/118) practitioners were acquitted of malpractice. One case was closed due to the OHP being medically incapacitated. Penalties meted out to guilty practitioners included fines 49.2% (58/118), suspension 28.8% (34/118), caution 8.5% (10/118) or a combination of the penalties 13.6% (16/118). The PPC

Table 5. Period before committing an offence.

				ANOVA/T test	
		N (109)*	Mean (SD)	F	P-value
Profession	Dental therapists	12	11.20 (8.22)	2.22	0.113
	Dentists	80	14.58 (11.36)		
	Dental specialist	17	9.01 (7.49)		
Nature of malpractice	Clinical	43	13.23 (11.18)	1.18	0.312
	Fraud	57	12.6 (9.94)		
	Unprofessionalism	9	18.47 (12.64)		
Gender	Female	25	9.3 (5.5)	4.83	0.030*‡
	Male	84	14.55 (11.55)		
*indicates smaller denominator					
‡T test					

also recommended the following: (i) attendance at a post graduate fixed prosthodontic course for one OHP and (ii) attendance at a course in Ethics for two OHPs. The duration of suspension ranged from 30 months to five years, with a significant majority (68.2 %), suspended for a year or more. The fines imposed ranged between R1,000 and R125,000 (mean of R 13,147.06).

DISCUSSION

The discussion provides an overview of the nature, frequency and outcome of malpractice claims by patients (as processed by the HPCSA) against OHPs.

Non-clinical malpractice

This study indicates a gradual rise in reported cases of malpractice against OHP, which confirms a reported global phenomenon.¹⁻⁴ The study revealed that non-clinical malpractice accounts for 77.8 % of all reported cases, of which fraud was 66.7% and unprofessionalism, 11.1%.

Compared with findings by Postma et al., cases of fraud, at 32.5%, have more than doubled from 2007 to 2016.⁹ Similarly, clinical misconduct by OHPs are on the rise globally.^{1-4,9,10,14-16}

The apparent spate of malpractice in South Africa may be attributed in part to a greater tendency of patients to report incidents as they become more empowered and knowledgeable. Other reasons for the increase could be attributed to (i) the reduction in dental benefits by third party funders; (ii) closing down or consolidation of medical schemes; (iii) increasing operational costs of running a dental practice and (iv) competition in a shrinking market.^{17,18}

Consistent with most global studies,^{2,3,8,10,14} but contrary to the Israeli study,¹⁵ middle aged males were most likely to engage in malpractice. Similarly, a majority of practitioners in metropolitan cities of Gauteng province were implicated. The high costs of living in metros fuels competition for scarce resources among OHPs.

This phenomenon is likely to encourage fraud and other forms of malpractice. These pressures are most observable among the males and middle aged OHPs. It was further observed that dental therapists committed exclusively non-clinical malpractice. This could be attributed to their limited scope of practice, and inexplicably low tariffs set for dentistry by medical insurance schemes.

Clinical malpractice

Clinical malpractice accounted for 22.2% of all counts of misconduct, involving, in a majority of cases, maxillofacial oral surgery 27.3% (12/44), endodontic therapy 22.7 (10/44) and prosthodontics 22.7 (10/44). This finding is consistent with data from the USA, Netherlands and Saudi Arabia.^{3,4,6-8} but contrary to that from Iran.¹⁰

The implicated clinical disciplines are characterised as being complex and highly technical, thereby requiring extensive clinical time and clinical skills.⁷ It is hence plausible to expect complications when these procedures are undertaken.

Outcome and penalty of the malpractice

Very few practitioners (3.4 %; 4/118) were acquitted of malpractice by the HPCSA. The low rates of exoneration indicate the robustness of the internal processes at the preliminary stages.

This process ensures that only serious cases meriting full investigation are referred to the practice conduct committees (PCC - MDB and PCC - DOH).

The HPCSA suspended 28.8 % (34), OHPs for varying duration of times, compared with small numbers in Iran (0.2 %).¹⁰ This disparity in suspension rates is attributed to the nature of misconduct committed.

South African OHPs engage in fraud, which is regarded as serious, unethical and unprofessional, while Iranian practitioners tend to commit clinical misconduct that is not prosecutable if it is judged not negligent.

The results indicate extreme variation in the fines imposed on OHPs. The mean amount payable to the HPCSA was R13 147.06, with fines ranging between R1000 and R125 000.

This is consistent with the literature, which recorded a mean payment of \$2230 and a maximum of \$13,000¹⁰; and between €18,001 and €240,000.¹⁹ The variation can be attributed to the nature and severity of the offences.

CONCLUSIONS

Non-clinical malpractice is on the increase and this is reflective of the volatile environment under which OHP's are practising in South Africa.

Recommendation

This study finding should be interpreted with caution, as there are some design limitations. For example, this was a cross-sectional study, therefore causality cannot be inferred.

The research was conducted on a small sample size and therefore, the results cannot be generalised either with regard to the Tshwane Metropolitan as a whole or to other areas. The study should have involved more participants both at different levels and in Tshwane Metropolitan as well as other locations.

Despite limitations, the current study provided useful information that may inform the design of further studies.

Recommendations

There should be strong emphasis on ethics and practice management in order to capacitate OHP's to adhere to the Professional Code of Conduct. Relevant curricula and CPD courses must be developed to achieve this outcome.

To mitigate complication associated with complex procedures, it is imperative for OHPs to upskill, to invest in new technologies and to respect the patient's wishes and expectations. It is further recommended that an in-depth study be undertaken to explore factors that contribute to the increase in malpractice.

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