

DENTAL FRAUD IN SOUTH AFRICA

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B.Ch.D. (U.W.C.)



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ABSTRACT

BACKGROUND

Healthcare fraud wastes money that could be spent in the treatment of patients. The exact amount of healthcare fraud is very difficult to determine, especially in a two-tier healthcare system like South Africa. The amount and cost of dental fraud in South Africa has never been researched. If the amount and cost of fraud in a specific area can be determined, resources can be better used to combat healthcare fraud in the future.

AIM

The aim of this study was to determine the amount and cost of dental fraud in South Africa between 2007 and 2015.

METHODOLOGY

The study design was a retrospective, record-based study. The number of dental fraud cases in South Africa over a nine year period, and where possible, the value of the fraud was calculated. The number of cases was calculated per dental professional so as to determine the levels of dental fraud per dental profession. Data from the Health Professions Council of South Africa (HPCSA), Discovery as well as the Board of Health Care Funders (BHF) was used.

RESULTS

HPCSA

Cases against dentists and dental specialists at the HPCSA reached a maximum in 2013 with 22 cases. The majority of the fraud cases (19) in 2013 were by a single practitioner. The same practitioner was responsible for 47 guilty charges of employing an unregistered laboratory/person as well. In 2014 a single practitioner was also responsible for half of the fraud cases. Cases against dental therapists reached a maximum in both 2009 and 2014 with 12 cases. In between those years the cases dropped to zero in 2011.

Discovery Health

The overall picture for the dentists shows a gradual decrease in the number of fraud cases, although the amounts involved are still increasing. The number of fraudulent cases involving dentists as discovered by Discovery have decreased from a high in 2007 with 179 cases to 2015 with 63 cases. Fraud by dental therapists showed a remarkable increase in both number of cases as well as the amount involved in the cases. Cases involving dental therapists have increased from 1 in 2007 to 22 in 2015. The dental technicians showed very little fraud, except for a larger caseload in 2012 and 2013 respectively. Dental technician cases started at 1, climbed to a maximum of 134 in 2013, then decreased again with 2 cases in 2015.

The total amount involved in fraudulent cases involving dentists from 2007 to 2015 accumulate to just more than ZAR13,6 million. The total for all dental professionals at Discovery for the same time period adds up to ZAR18,1 million.

BHF

Unfortunately the BHF were not able to provide data for all medical aid schemes that are members of BHF but only for 40%. With a change in the fraud detection system as well as approach to detecting fraud, very little data was available between 2011 and 2013. This made it very difficult to determine the increasing or decreasing nature of dental fraud as detected by the BHF over the nine year period. Over the nine year period an estimated ZAR 40 million was lost to dental fraud.

CONCLUSION

Dental fraud seems to be on the increase. There seems to be a higher incidence of dental fraud among dental therapists than dentists or dental technicians in South Africa.

DECLARATION

I, Renier PUTTER (Student No. 2380814), the undersigned, hereby declare that this dissertation is my own original work except where indicated in acknowledgements and references. It is being submitted in partial fulfilment for the degree (MSc) in Dental Public Health at the Faculty of Dentistry, University of the Western Cape. It has not been previously submitted in part or its entirety towards any other degree or examination at any other university.



Signature: _____

Date: November 2016



DEDICATION

This thesis is dedicated to my parents and my wife.

Mom and Dad, thank you for making me the person who I am today. Thank you for the values and discipline you have instilled in me.

Anet, thank you for supporting me and standing by me through the completion of this work. I could not have done this without you. I have found the one whom my soul loves.



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First of all our heavenly Father for giving me talents to be able to complete this research.

Prof Sudeshni Naidoo for persevering, supporting and guiding me and helping me through this long process. Thank you Prof, I really appreciate all you have done for me.

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Lastly, my colleagues across South Africa. Thank you for taking the road less travelled and being honest in your work. Rules cannot substitute for character.



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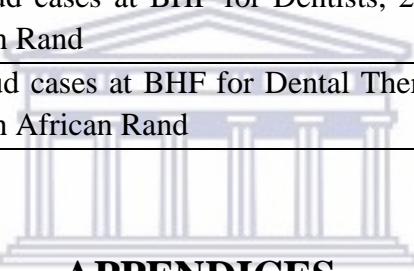
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CHAPTER 1

INTRODUCTION

1.1 Introduction

Rules cannot substitute for character.

Alan Greenspan, Former Chairman,
U.S. Federal Reserve

Fraud is not a new phenomenon. It is also not limited or confined to certain countries, governments or even specific industries. It is however more prevalent in some countries than in others. It affects developed as well as resource-poor countries. Most countries aim to diminish crime, fraud included; yet there is an awareness that it is unlikely that a crime-free society will ever be achieved, but it can be policed to try to make it as difficult as possible to commit crime, and in this case, to commit fraud or to indulge in fraudulent activities.

The healthcare industry is unique in that it has many different role-players: government, large private companies including hospital groups and insurance companies (called medical aid schemes in South Africa), private healthcare practitioners and consumers, and is both a service- and product-based industry. This results in a very complex industry where vast amounts of money are spent while at the same time there are too many role-players vying for own personal gain and inevitably some take advantage of the system and manipulate it to their advantage.

Very little research has been done on healthcare fraud and specifically dental fraud in South Africa and even though dentistry is only a relatively small part of the healthcare industry in South Africa, from a medical aid spending point of view, millions of Rands are at stake, and as such is a viable market for healthcare fraud. With the general public complaining of the high cost of healthcare as well as the steep inflation rates in healthcare, healthcare fraud detection and prevention should be of paramount importance for governments, politicians and policy makers.

1.2 Purpose of the Study

The purpose of the present study was to estimate the level and amount involved in dental fraud in South Africa. Like many other crimes, it is nearly impossible to determine the exact amount of dental fraud in South Africa. A determination of the amount of fraud taking place can be calculated by using international standards and averages in relation to the total amount of healthcare expenditure. One of the ways of estimating health care fraud in South Africa is to review the fraud cases documented by the Health Professions Council of South Africa (HPCSA) as well as examining fraud cases from individual medical aid schemes or administrators in South Africa, however Gee *et al.* (2010) have shown that this represents an under estimate of the amount of fraud. Detected cases of fraud do not represent the total number of fraud cases, and according to the HPCSA (2013) all cases of fraud in excess of R100 000 needs to be reported to the South African Police Service (SAPS), however it is not possible to obtain any data from the SAPS.

Since there is a paucity of research in this area, a nine year retrospective study (2007-2015) on dental fraud was carried out. It was anticipated that the review would assist in the development of guidelines to help prevent dental fraud in the future. The World Health Organisation (WHO) (2011) has re-iterated the fact that one can never eradicate the dishonest minority that commits healthcare fraud, but by developing and implementing a strong anti-fraud culture, the number of the honest and ethical health practitioners can be increased. By improving the character of a nation instead of writing and implementing more rules, there may eventually be a decrease in fraudulent crime in the future.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

As the focus on fraud increases worldwide so does the collective awareness of how it affects our everyday lives and importantly the loss of funds available to spend on healthcare. Healthcare fraud is usually researched collectively and not in specific disciplines of health. Very little research has been done on dental fraud worldwide, and even less on dental fraud in South Africa. Researching fraud in specific areas would assist both medical aid companies and governments if they were aware of the areas in health care that are more prone to fraud and fraudulent activities.

2.2 Health Economics

Healthcare functions within a set of limitations and boundaries broadly defined as health economics, at the heart of which lies the healthcare dilemma of reconciling the infinite healthcare wants, needs and demands with limited resources such as time, expertise, income and infrastructure (Palmer and Ho, 2008; Phillips, 2005).

Developed countries spend much more on healthcare than developing nations. Brooks *et al* (2012) reported healthcare spending in the United States to be more than US\$2.3 trillion per year, GBP£109 billion in the United Kingdom and €1 trillion in the European Union. The WHO (2012) reported global spending on healthcare to be US\$6.5 trillion annually, amounting to US\$900 per person globally per year. There is therefore limited, albeit vast amounts of disposable income or money that the general population or governments have available or are willing to spend on healthcare. Where healthcare is funded by the national government, healthcare also has to compete with other national departments such as education and defence for funding (Palmer and Ho, 2008). The net result is that there is a limited amount of money that is available to be spent on healthcare in any population. This limited amount of money needs to be reconciled with the healthcare needs and wants of that same population.

New and expensive drugs, state-of-the-art technology, an ageing population, rise in obesity and non-communicable diseases as well as increasing public expectations exacerbate the demands on the limited amount of funding available for healthcare. Fraudulent activities decrease the amount of money available to be spent on healthcare. It is important to be aware of the extent of fraud in a specific industry or business, so that it can be minimised and reduced so as to increase the financial health of the industry or organisation (Gee *et al.* 2010).

It should however be noted that the amount of money being spent on healthcare in a specific population is not directly proportional to the health status of the same population (Phillips, 2005). The United States spends by far the most money per person per year on health with a total of US\$8 362, while the worldwide average is US\$948 (WHO, 2012). However, there are other industrial countries with similar or better health services that spend much less on health care per person (Lorenz, 2013). Any amount allocated to healthcare that is not being spent on actual healthcare should be seen as waste and this includes fraud, corruption and abuse.

2.3 Defining Fraud and Healthcare Fraud

Fraud, according to Pearsall (1999) and Merriam-Webster (2013), can be defined as, the wrongful deception, misrepresentation or concealment with the clear intention to deceive and results in personal or financial gain, or as intentional theft (Rocke, 2006). Vian (2008) described corruption as the misuse of power for personal or private gain, and also noted that definitions for corruption varies from country to country, and may even be different within areas of the same country. Busch (2012) defined healthcare fraud as the deliberate practicing of a scheme or programme to defraud a healthcare scheme or attaining money or property by means of false undertakings, representations or deceptions.

Fraud is not the same as abuse. Hannigan (2006) states that fraud implies an *intention* to be dishonest whereas abuse does not, and Busch (2012) defines healthcare abuse as substandard care. Hannigan (2006) goes further to state that although abuse does not imply *intent*, it is not excusable on the basis of ignorance.

It is clear that there is no perfect or uniform definition for fraud. The most difficult part when dealing with fraud is proving intent (Transparency International, 2006). Many fraudsters claim ignorance and often receive a lesser punishment for abuse, rather than being labelled as an intentional fraudster, which in most healthcare systems carries a far more severe punishment.

2.4 Who Commits Healthcare Fraud?

Lewis and Farragher (2013) noted that most dentists are professional, ethical, honest and caring and it is a minority of fraudsters that are responsible for dental fraud and abuse. According to the *Report to the Nations on Occupational Fraud and Abuse* by the Association of Certified Fraud Examiners (ACFE) 52% of fraud and abuse perpetrators are aged between 31 and 45 years. It also showed 66.8% were male globally, with the gender distribution in Sub-Saharan Africa being higher at 78.9%. The highest percentage of female perpetrators was in the United States at 46.1%. Perpetrators of fraud and abuse tend to live beyond their means (ACFE, 2014) and often have on-going financial difficulties (Doka, 2012).

Busch (2012) together with the German-based Transparency International (2006) reported on providers (hospitals, doctors, nurses, pharmacists etc.), patients, vendors, regulators (ministries of health and parliaments) and suppliers (pharmaceutical companies and producers of medical equipment) as well as payers (government and medical insurance companies) as those that commit healthcare fraud together with non-patients and fraud syndicates. Klynveld Peat Marwick Goerdeler (KPMG) (2009) categorised perpetrators in medical aid healthcare fraud into administrators, brokers, members, service providers and other. Between 2003 and 2006 the amount involved in member fraud and service provider fraud were very similar, by 2009 service provider fraud was double that of member fraud.

When investigating practitioners in the Netherlands, van Kolschooten (2003) estimated that 17% of paramedics, physiotherapists and alternative practitioners, 10% of pharmacists and specialists and 5% of general practitioners commit fraud. Van Kolschooten (2003) also noted that only 6% of patients committed fraud, lower than the average for medical professionals.

Acuna (2014) reported that perpetrators of healthcare fraud in the pharmaceutical industry included patients, patients' family members, prescribers, pharmacy staff, medical employees, service contractors, recruiters and countless others. It is clear that healthcare fraud is not necessarily limited to a specific group of individuals and that the perpetrators include all groups of people in the health care industry.

The present study focussed on dental fraud committed by oral healthcare practitioners as well as patients in the dental environment. Only cases that were reported by medical aid administrators or the HPCSA were used. KPMG (2012) revealed that most of the healthcare fraud in South Africa, investigated at medical scheme level, is committed by the members or service providers, with an insignificant amount being committed by brokers and administrators. However focus on one specific area or role-player in fraud creates opportunities for other players to commit fraud in areas that are not receiving the same amount of attention (Busch, 2012).

2.5 Why is Healthcare Fraud Committed?

Healthcare fraud is sometimes seen as a “victimless crime” by fraud perpetrators who perceive that medical aid schemes have large amounts money, no one ‘gets hurt’ through their fraudulent activities and it is easy to conceal their behaviour between the high number of healthcare claims per year (Hannigan, 2006). Society and the general public frequently entrusts private players in the healthcare industry with influential public roles as well as access to public money, which makes healthcare one of the more attractive industries to target for fraud (Transparency International, 2006).

According to Vian (2008) corruption or fraud is driven by three main factors: people commit fraud because they feel pressured (financially or by clients), because they can rationalise their behaviour or feel justified in “rewarding” themselves and lastly because they have the opportunity to abuse their power. In addition, opportunities to commit fraud increased greatly when officials had a monopoly of power of the clients, where officials have autonomous authority to make decisions and where little or no accountability exists (Vian, 2008). Many dentists work in exactly these circumstances and are thus “ideal” cases where fraud and corruption will flourish.

The WHO (2011) reported that the motives for fraud perpetrators are universally very similar: a desire for money and a belief that they will not be caught. In his bestselling book, *The Speed of Trust*, Stephen Covey writes that in organisations where low-trust is prevalent, the following are “taxes” the company pays due to this low-trust: 1) Redundancy, 2) Bureaucracy, 3) Politics, 4) Disengagement, 5) Employee Turnover, 6) Churn (turnover of stakeholders other than employees) and 7) Fraud (Covey, 2006). Fraud in this case is very unique in the sense that low-trust leads to fraud, as one of the low-trust “taxes” which in turn leads to more low-trust within the organisation. Fraud is thus an instigator as well as the result of low-trust within an organisation. Low-trust in an organisation can thus be a reason why certain individuals commit fraud.

The American Dental Association (ADA) (2005) listed the following four conditions in a workplace that provide opportunities for fraud:

1. Poor internal controls
2. Too much control limited to specific employees
3. Lack of supervision by management
4. Failure to pre-screen employees adequately

With coding and billing frequently named as one of the most prevalent forms of healthcare fraud, it is important that practitioners familiarise themselves with the proper coding guidelines. Hannigan (2006) also makes note of the importance of knowledge of the coding guidelines. The South African Dental Association (SADA) also regularly publishes an updated coding guideline booklet to help dental practitioners stay up-to-date with coding rules and guidelines to minimise unknowing abuse of the healthcare system in South Africa.

2.6 A Framework for Corruption in the Healthcare Sector

Vian (2007) developed a theoretical framework for corruption in the health sector, which consolidates previous models and concepts. Figure 1 is a graphical representation of this framework. According to this framework, corruption is driven by three main factors: the abuse of power for private gain happens because officials feel pressured to abuse (financially or by clients), because they can rationalise their

behaviour (personality, social norms, attitudes and ethical beliefs are used to support their decision) and lastly because they have the opportunity to abuse their power. In addition, opportunity is influenced by the following factors: monopoly, discretion, accountability, citizen's voice, transparency, detection and enforcement.

Monopoly

Where a monopoly exists, it limits a citizen's ability to choose their service provider and creates opportunities for corruption. Where the government is the only provider of a specific healthcare service, patients could be forced to pay bribes to access those services.

Discretion

Autonomous power opens the door for abuse. High amounts of discretion combined with very little control allow officials to abuse the healthcare system for their own benefit. Examples include officials that hire unqualified family members, the procurement of expensive drugs or equipment and the procurement of unnecessary drugs or equipment to obtain a promised kickback.

Accountability

Accountability is the obligation of the government to show that it is effectively carrying out its goals in line with the expectations of the general public. The WHO (2011) confirmed that healthcare systems with rigid financial and medical accountability systems in place are more effective in preventing and detecting fraud.

Citizens voice

Citizens' voice allows the general public to contribute to the budgeting and planning phase of healthcare systems. This can be done through community leaders participating at executive level or more commonly citizens' voices can be heard through patient feedback and survey systems.

Transparency

Closely related to accountability, transparency allows for the active disclosing of information on how decisions are reached as well as measures of performance. Public

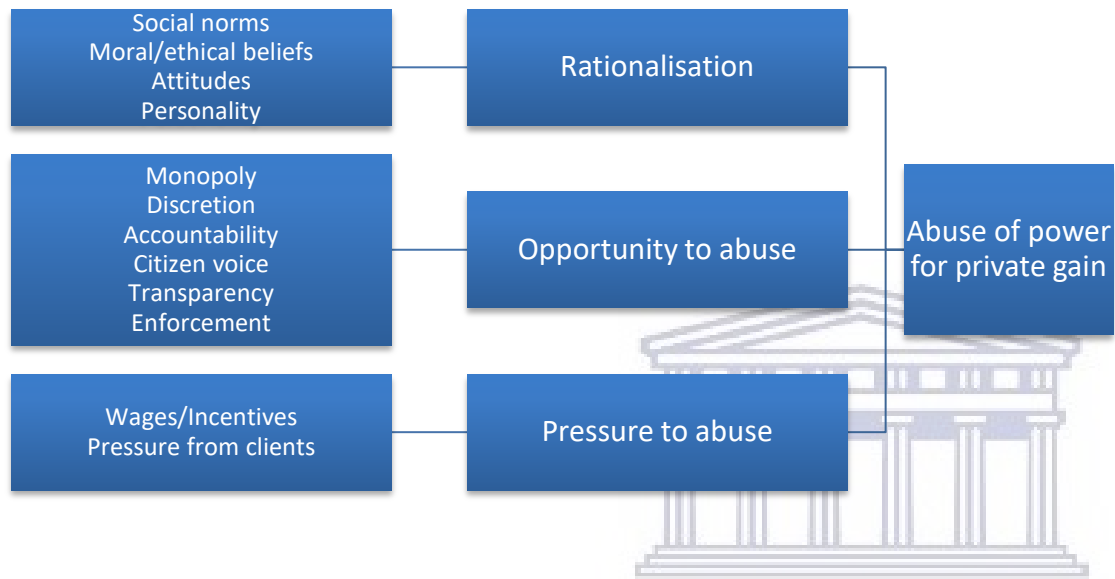
service “report cards” is one example that can be implemented to increase transparency.

Detection and enforcement

The goal of detection and enforcement is twofold: 1) to remove corrupt officials and 2) to deter others from engaging in corrupt activities in the future.

This framework is designed to be used for corruption by government officials, but can also be implemented in the private sector, and in both medical and dental practice. The smaller the practice, the more opportunities there exists to engage in corruption, fraud and abuse.





Healthcare system & structure

- Insurance
- Player-provider split
- Role of private sector etc.

Type of abuse

- Hospital construction
- Procurement
- Informal payments etc.

Resources

- High or low income
- Donor dependence, influx of funding

Figure 1: Framework of Corruption in the Health Sector

2.7 Uniform Occupational Fraud Classification System

The American Dental Association (ADA) also published an occupational fraud classification system and according to this system, all occupational fraud falls within three main categories: corruption, asset misappropriation and fraudulent statements. Figure 2 shows the classification system under corruption.

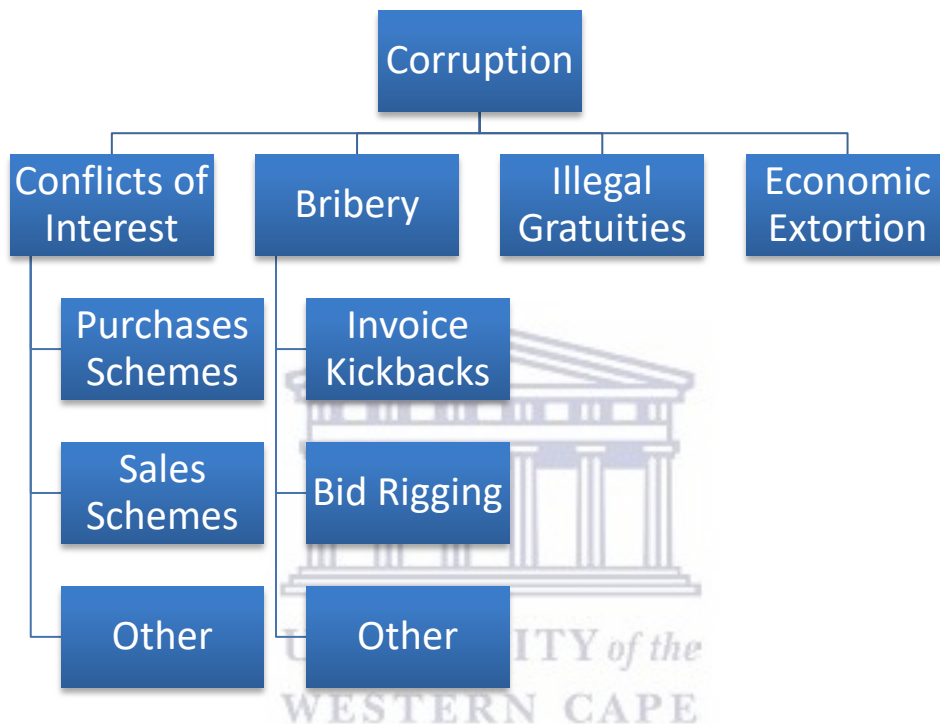


Figure 2: Uniform Occupational Fraud Classification System under Corruption

The corruption sub-classifications include conflicts of interest, bribery, illegal gratuities and economic extortion. Figure 3 shows the classification system under asset misappropriation. Under asset misappropriation sub-classifications include cash (larceny, fraudulent disbursements and skimming) and inventory and all other assets (misuse and larceny). According to the ADA (2005) more than 80% of all occupational frauds involve asset misappropriation.

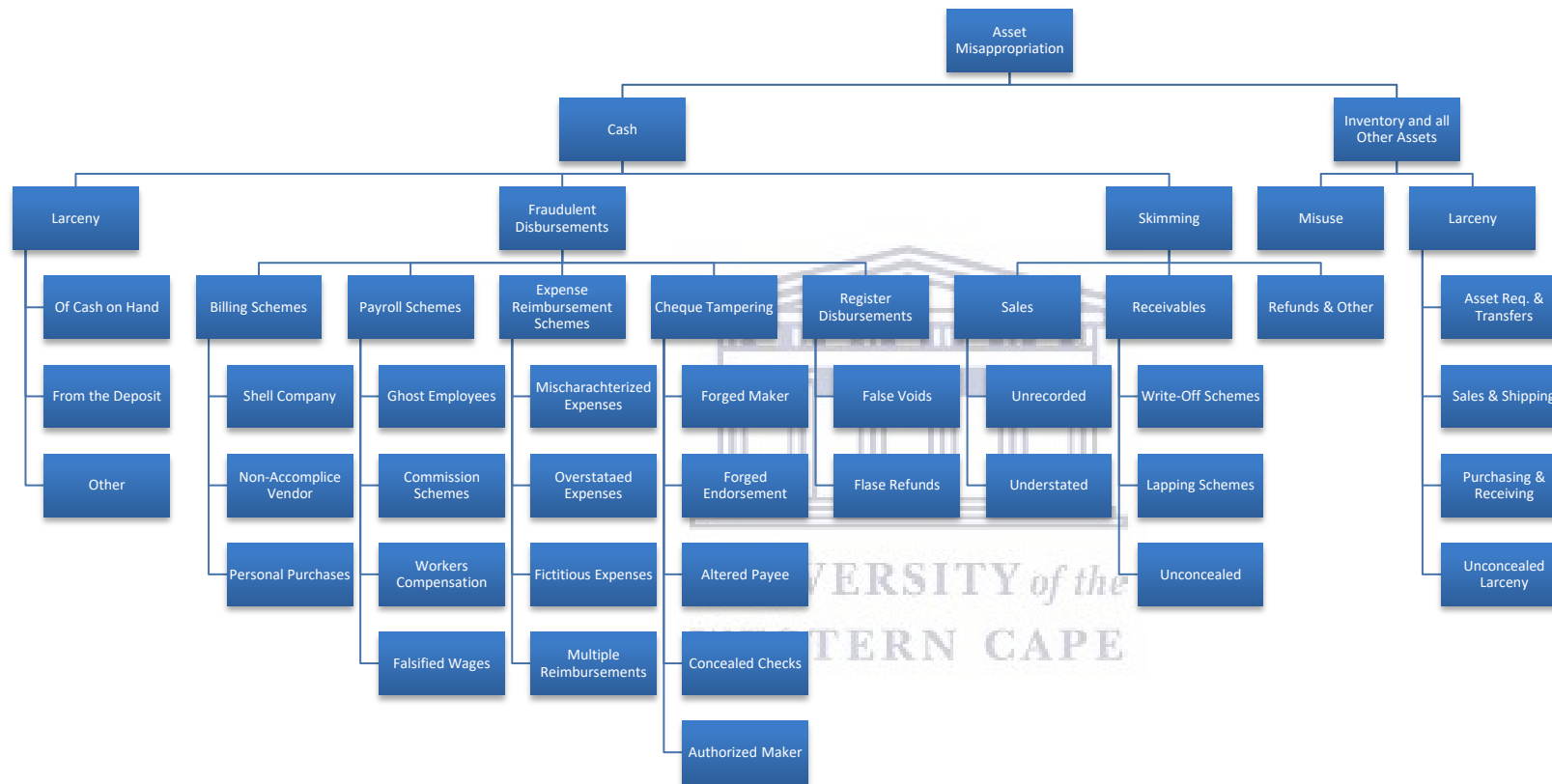


Figure 3: Uniform Occupational Fraud Classification System under Asset Misappropriation

Figure 4 shows the classification system under fraudulent statements. Under fraudulent statements sub-classifications include financial and non-financial.

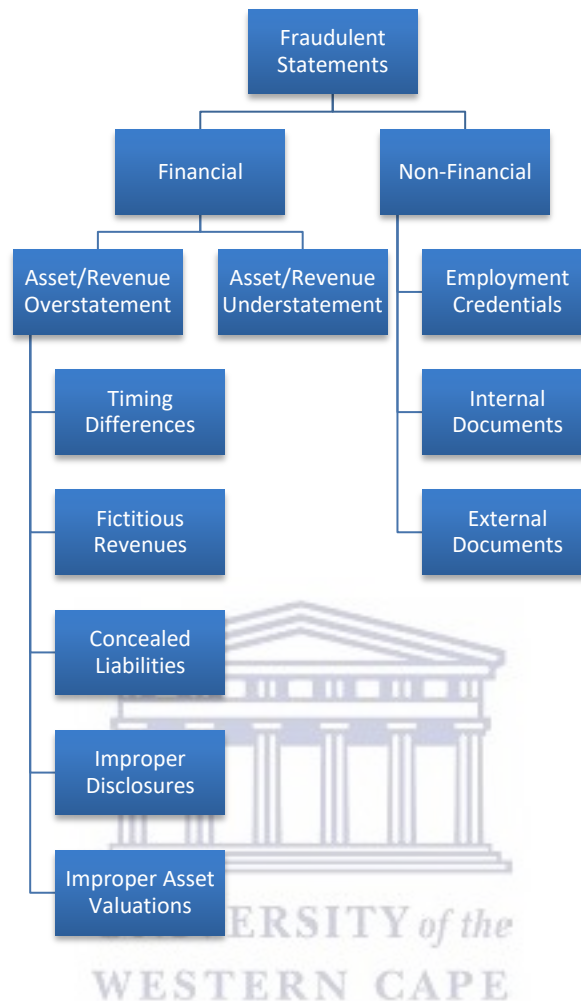


Figure 4: Uniform Occupational Fraud Classification System under Fraudulent Statements

2.8 Global Healthcare Fraud

Fraud often takes place in areas or industries where vast amounts of money are involved, and the healthcare industry is such an area. The World Health Organization (WHO) estimated global healthcare expenditure in 2010 at US\$6.5 trillion (WHO, 2012). Healthcare services, together with financing and banking sectors are the industries that are most focussed on by fraudulent schemes (Smith and Iacobelli, 2013). Healthcare was also listed fourth behind banking and financial services, manufacturing and government and public administration according to the number of fraud and abuse cases per industry by the ACFE (ACFE, 2014).

Fraud, including healthcare fraud, is not limited to a few countries, but is a worldwide problem. The media on a daily basis reports cases of fraud worldwide. Mackey and Liang (2012) estimated that 80% of people in developing countries have experienced corruption or fraud in the healthcare environment. They are often the very same people that do not have access to the state of the art healthcare systems like patients from developed countries have, and the level of patient care is thus further lowered due to fraud. In 2000, it was estimated that 10-15% of the United States national healthcare budget was lost to fraud (Rocke, 2000). This is the high-end figure when considering that Gee *et al.* (2010) determined that the percentage of fraud in an organisation compared to its total expenditure is at least 3%, probably more than 5% and possibly as much as 10%. Hannigan (2006) estimated fraud in the healthcare system in the US due to fraudulent claims to be between US\$56.7 and US\$170 billion annually.

In Cambodia in 2005, according to the WHO (2006) between 5% and 10% of the healthcare budget was lost to fraud before it is even paid from the Ministry of Finance to the Ministry of Health. In Europe, Nuthall (2010) reported that GBP£50 billion is lost annually to healthcare fraud and corruption in the combined European Union healthcare systems, of which €1.6 million was estimated to have been lost due to healthcare fraud in Romania (Pantea, 2012). In the Netherlands alone the total amount of healthcare fraud is estimated to be between €200 million and €4 billion of an annual €40 billion healthcare budget (Van Kolschooten, 2003). This relates to 0.5% - 10% of the annual healthcare budget, which is slightly below the previously reported 10% - 15% for the United States, but in line with more recent reports from McMahon and Chopra (2013) estimating the percentage of the annual healthcare budget lost to fraud to be 3% - 10% in the United States.

In a recent study by Gee *et al.* (2010) it was found that on average 5.59%, as a proportion of total expenditure is lost to fraud and error in healthcare. Although the average was 5.59%, more than 77% of participants reported a loss of more than 8% of their expenditure to fraud and error. Healthcare fraud in the USA has become such a major problem that the Attorney General's office listed healthcare fraud as one its most important priorities, second only to violent crime (Hannigan, 2006). Despite these figures, it is surprising that countries spend a mere 0.1% of their annual healthcare budget on auditing and investigating corruption (WHO, 2006).

2.9 Global Dental Fraud

According to Roche (2000) the United States does not keep separate records for dental fraud cases, and dentists are often grouped together with chiropractors, optometrists and other healthcare professionals when fraud statistics are compiled. Similar results were found throughout Europe. Statistics specifically for dental fraud could not be found. It may be argued that dental fraud is not as significant in value as other medical fraud and thus do not need to be categorised separately, however the Philadelphia Business Review (2013) reported on a single dental fraud case against a dentist and his daughter totalling more than US\$5 million.

2.10 Common Healthcare Fraud Types in USA

Hannigan (2006), Piper (2013) and Roche (2000) reported common healthcare-provider fraud schemes in the United States. These included the following:

1. Charging for services not rendered
2. Upcoding
3. Unbundling or incorrect reporting of procedures or diagnoses
4. Mischaracterization or billing for a non-covered service as a covered service
5. Unnecessary medical services or overutilization
6. Routine waiver of co-payment
7. Quackery and sham cures
8. Kickbacks and bribery
9. Misrepresenting dates of service
10. Misrepresenting locations of service
11. Misrepresenting provider of service
12. False or unnecessary issuance of prescription drugs

Hannigan (2006) also listed four areas that the Office of the US Inspector General identified as potential risk areas in healthcare fraud, namely: 1) coding and billing, 2) reasonable and necessary services, 3) documentation, and 4) improper inducements, kickbacks and self-referrals. Although this focuses on fraud by service providers it is important to note that medical identity theft is also a very common type of healthcare

fraud committed by “patients.” In 2010 alone more than 1.5 million Americans were victims to this type of fraud (Busch, 2013). Many of these schemes are relevant to the South African healthcare system including the billing for services not rendered, misrepresenting dates, provider or location of service, bribery as well as false issuing for prescriptions.

2.11 Common Healthcare Fraud Types in Romania

Healthcare fraud in different regions and countries do not necessarily reflect the same patterns. With each individual healthcare system there are different areas that fraud perpetrators target. It is also important to be aware that while each healthcare system has the same major role-players, they may not necessarily function in the same manner in each healthcare system. In addition, healthcare systems might function in different legal systems where a different set of laws apply. What might not be allowed in one country may not be acceptable in another. Different laws applicable to advertising services are just one such an example.

Pantea (2012) listed the fifteen most prevalent methods for committing fraud in the Romanian healthcare system that mostly involved claiming for treatment not performed (medical treatments, prescriptions drugs or laboratory tests). Some of the fraudulent methods described were very similar to those being committed in the United States, while others were very different and do not seem logical without knowledge of how the specific healthcare system functions as a whole. As each healthcare system is inevitably different to each other, there are different methods and *opportunities* to commit fraud.

2.12 Healthcare Fraud in South Africa

The Corruption Perceptions Index (CPI) is an annual score given to countries to indicate the perception of corruption in that specific country for that year. It is calculated by making use of surveys of business people and assessments by analysts. In its 2014 report, Transparency International gave South Africa a CPI score of 44.

To put it into perspective, Denmark was the number one ranked country with a score of 92 and Somalia and North Korea were tied for last place (174th) with a score of 8. The global average score is 43, and sub-Saharan Africa averaged 33. It would thus seem that South African's perception of corruption in the country while in line with the global average, is above average when compared to sub-Saharan Africa.

According to KPMG (2012) the value of fraud investigated at medical scheme level between 2007 and 2009 in South Africa was around ZAR221 million. These included fraud investigated at medical schemes in South Africa covering around 84% of the total number of medically insured lives in South Africa at the time. Discovery Health recovered more than ZAR250million from fraudulent claims (Discovery, 2013). It must be noted that, with roughly 84% of the total population in South Africa not medically insured, a vast amount of healthcare fraud is not included in the figures mentioned above.

Statistics released by the Board of Healthcare Funders (BHF) recently reported healthcare fraud in South Africa to be approximately R22 billion annually, although when applying the international average of 7% of claims paid, it is estimated at between R3 billion and R15 billion annually (Discovery, 2013). Kahn (2014) recently reported estimates of between R8.22 billion and R42.2 billion. The Health Professions Council of South Africa (HPCSA) published figures for healthcare fraud estimates at between R4 billion and R15 billion (HPCSA, 2013), while the WHO (2011) at the same time reported healthcare fraud in South Africa to value between R4 billion and R8 billion annually.

The 2013-2014 annual budgets for healthcare expenditure in South Africa was R133.6 billion (National Treasury, 2013). The estimate of R3 billion – R15 billion fraud would equate to 2.25% - 11.23% of the annual budget. This is in line with worldwide estimates when compared to annual healthcare budgets in the United States and Europe. It does however not mean that this is an acceptable figure. The figures released by KPMG (2012) are much lower when compared to other estimates in South Africa, and this could be due to the fact that the KPMG report only investigated fraud at medical scheme level, and only around 16% of South Africans are medically insured.

In a recent survey done by KPMG (2009) in which several of the largest medical aid schemes in South Africa participated, 11 200 cases of fraud was reported for the three year period 2007 – 2009. The rand value of these fraud cases exceeded ZAR221 million. This was the third survey of its kind done by KPMG and even though the figures are very high, they have documented a downward trend in both the number of fraudulent cases per year as well as the value of these cases over nine years.

As can be gleaned from the discussions above, the figures for fraudulent activities are all estimates with a wide range of values. The WHO (2011) confirmed the absence of accurate data in a recent report. A frightening statistic though, shows healthcare fraud to be on the increase in South Africa (Ogunbanjo and Knapp van Bogaert, 2014).

2.13 Dental Fraud in South Africa

No statistical data could be found specifically for *dental* fraud cases in South Africa, although Postma *et al.* (2011) published data regarding complaints against oral health professionals in South Africa. Fraud was one of the categories under which complaints were reviewed. Postma *et al.* (2011) reported 30 fraudulent cases between 2004 and 2009, which added up to 29% of all complaints against dentists. For dental therapists 12 cases of fraud were reported between 2004 and 2009, resulting in 46% of the total number of complaints against dental therapists (Postma *et al.*, 2011). It was also noted that the fraud-related complaints generally arose due to the irregular accounts that were sent to patients and/or irregular submissions to medical aid fund administrators (Postma *et al.*, 2011). According to a report published by KPMG (2012) nearly 70% of all healthcare fraud consists of charging for services not rendered and code manipulation. Unfortunately these figures do not provide a complete picture of the amount of dental fraud in South Africa. The cases were only those cases that were investigated by the HPCSA, and where practitioners were found guilty. Many fraud cases never reach the HPCSA and are either resolved at patient-practitioner level or at the medical aid administrator level.

2.14 Common Healthcare Fraud Types in South Africa

Postma *et al.* (2011) reported on the following types of fraud as found in HPCSA misconduct records: over-servicing, over-charging, claiming for services rendered to non-members, changing service dates, discrepancies between clinical records and billing records, submitting claims whilst suspended from practicing, incorrect tariff codes, claiming for procedures not performed, split billing and claiming for non-claimable goods. Unfortunately they did not differentiate and calculate the exact amount of fraud in each type.

The triennial KPMG (2009) survey found code manipulation to represent 39.81% of service provider fraud cases between 2007 and 2009. This was followed by: charging for services not rendered (25.32%). These two alone made up nearly two thirds of the total number of healthcare fraud cases and showed an increasing trend in the number of code manipulation cases. Service provider fraud totalled ZAR151.9 million while member fraud came to ZAR67.3 million.

Ogunbanko and Knapp van Bagaert (2014) compiled the following comprehensive list of types of healthcare fraud committed in South Africa:

- *Member fraud*
 - Forging and submitting claims for procedures that were never rendered
 - Claiming for high-cost equipment, receiving the money, but then failing to pay the supplier and not collecting the equipment
 - In collusion with doctors and hospitals claiming for false hospital admissions
 - Sharing of medical scheme membership card with non-scheme members
- *Service provider fraud*
 - Pharmacies dispensing generic medication but claiming for expensive brand-name medication
 - Pharmacies selling front-shop items but submitting claims for medication that is not dispensed
 - Pharmacies selling high-cost devices in surplus of the members' needs
 - Claiming for services not rendered

- Service providers willingly treating non-scheme members but claiming as if treating a scheme member
- Dispensing doctors dispensing generic medication but claiming for expensive brand-name medication
- Fraudulent sick notes
- Providing cosmetic treatment but claiming for some other covered procedure
- Changing of diagnosis to access a specific benefit
- Claiming for excessive or additional material not used during treatment
- Dentists claiming for additional fillings or extractions that was not performed
- Dentists providing cosmetic gold inlays but charging for normal crowns
- Biokineticists acting as personal trainers to healthy members in gyms but claiming for rehabilitation services
- *Fraud by other individuals or syndicates*
 - Submission of false membership applications and submitting claims for those false memberships
 - Falsification of bank details to receive payment instead of members of service providers
 - Admission of healthy members to hospitals in order to benefit from hospital cash-back insurance
 - Syndicates colluding with employees of healthcare funders
 - Brokers providing false information to avoid waiting periods and late joiner penalties

Discovery reported on the following types of healthcare fraud in South Africa:

- Claiming for services not rendered
- Merchandising
- Claiming for non-covered benefits as a covered benefit
- Cash Loans (ATM scams)
- Card Farming

- Cosmetic Surgery
- Code Gaming or Manipulation
- Non-disclosures

It is clear from this list that perpetrators will always find new and creative ways to commit fraud in the South African healthcare system.

2.15 The Effects of Fraud on Healthcare

Fraud is just one aspect that contributes to the misuse of valuable resources in the healthcare system, and this puts extra pressure on the healthcare system as a whole according to Hannigan (2006), WHO (2011) and Mackey and Liang (2012), while Nuthall (2010) reported a negative effect specifically on patient care due to healthcare fraud. Mackey and Liang (2012) also noted that healthcare fraud weakens health systems and delivery as well as severely compromises the quality of treatment. Vian (2008) confirmed a negative impact on health and welfare of patients due to corruption. Fraudulent activities not only limits availability of funding for genuine healthcare, but also influences the level of patient care, health and welfare negatively. The more healthcare fraud exists in a health system, the lower the level of patient care and the health and welfare of patients in that same healthcare system.

Healthcare fraud also means money lost from the healthcare budget that could have been used to fund health insurance for low-income individuals (Hannigan, 2006), or money that could have been used by medical aid schemes to invest in its member's healthcare needs (Discovery, 2013). Ogunbanjo and Knapp van Bogaert (2014) reported that ZAR2 500 – R2 800 per year of each medical aid member's contribution is lost to fraud. If fraud can be reduced it will decrease the cost of healthcare in South Africa.

2.16 Fraud Detection, Measuring and Prevention

Detection

In the Netherlands, van Kolschooten (2003) reported that medical insurance companies only had a five per cent chance of detecting whether a claim was too high or false. This is indeed a very low figure when compared to Norway (60%). Improved data analysis may be one way to increase the detection of fraudulent claims. The WHO (2011) found that countries that have strong and rigid financial and medical accountability systems are most successful in combatting healthcare fraud. This is evident by the United States Department of Justice (2013) report that showed recoveries of healthcare fraud during the 2012 financial year was US\$4.2 billion. Healthcare fraud can be successfully detected and money can be recovered.

KPMG (2009) reported that the four most important categories that resulted in fraud being discovered are: 1) informant/whistle blower process, 2) notification by member(s), 3) internal controls and 4) medical rules based detection software. These findings are very similar to those of the Association of Certified Fraud Examiners (ACFE) (2014), which found tips (informant/whistle blower process) to be the most common detection method for cases of occupational fraud. This highlights the importance of, not only data analysis, but also the human side of fraud detection.

Measuring

It is very difficult to determine whether any prevention and detection systems have any effect on the prevalence or incidence of fraud without first measuring the amount of fraud, corruption and abuse at a specific point in time (Gee *et al*, 2010; Gee and Button, 2014). Fraud, like any other business expense or cost, can only be effectively reduced if it can be measured. Vian (2008) noted that the four main methods used to measure corruption in a healthcare system are 1) corruption perception surveys, 2) household and public expenditure surveys, 3) qualitative data collection and 4) control systems review.

Corruption Perception Surveys

These types of surveys are very similar to Transparency International's CPI score that was discussed previously under the section of Healthcare Fraud in South Africa. They help to highlight areas of concern, establish a baseline and allow monitoring over time as well as provide public information for external accountability. One very interesting finding by Krastev (2004) was that the perceptions of corruption were consistently higher compared to actual corruption.

Household and public expenditure surveys

This type of survey helps to measure spending by households on services that should be offered by the government. It also helps to identify leakage of funds between different levels of government. This type of survey can be quite expensive, yet it should be noted that much of this information is usually already gathered for other purposes.

Qualitative data collection

Qualitative data collection helps to better understand and define the social norms and pressure that are sometimes related to corruption. Krastev (2004) showed for example how it helped to understand why patients feel pressured to pay for services that should be offered free of charge, as well as why providers accept these payments in parts of Eastern Europe. It helps to provide details on attitudes, norms, beliefs and pressures.

Control system review

This type of review compares an organisation's processes with best practice standards to see how well the organisation is controlling its risk. One drawback of this type of review, according to Krastev (2004), is that it assumes that the systems within the organisation are stable, and are thus best suited in developed countries.

Brooks, Button and Gee (2012) on the other hand are adamant that fraud loss risk measurement exercises are the most effective way to measure healthcare fraud. The basis of this approach is that within a total number of transactions there are a certain number of fraudulent cases as well as genuine error cases, which have not been discovered or detected.

Fraud risk measurement exercises look at a specific area such as payroll, procurement or claims. A statistically valid sample of these transactions is then reviewed as being acceptable, errors or fraudulent. These cases are then used to extrapolate actual levels of fraud. Because a statistically valid sample of transactions is taken and by default will then include previously undiscovered error and fraudulent cases, this method is much more accurate in determining actual fraud levels. It shows actual levels of fraud as well as errors, something other measuring systems are unable to do. From this data two figures or rates are calculated namely the proportion of expenditure lost to fraud and error (PLR) and the frequency of fraud and error rate (FFER or FFR). Both are calculated as they may sometimes give very different results.

Where the cost of the items lost to fraud and error are greater than the average cost of expenditure items, the PLR will be greater than the FFR. Brooks, Button and Gee (2012) analysed 69 of these fraud measurement exercises from 6 different countries namely: the United Kingdom, United States, France, Belgium, the Netherlands and New Zealand in their 2011 report on healthcare fraud between 1997 and 2009. They could not find any report of similar exercises that were done in either Asia or Africa. From the 69 exercises they found the range of PLR in healthcare to be between 3.29% and 10.00%, with an average of 5.59% (Figure 5). This might appear to be a fairly small percentage, but when considering that the total value of healthcare expenditure worldwide is estimated to be at US\$6.5 trillion, even this small percentage adds up to a large sum of money lost to fraud and error. All of the exercises reported a PLR of above 3%, with more than 22% showing a figure of above 8% (Figure 6). While this is not an exact science, and is still not a picture of total fraud, but is currently the most accurate representation available.

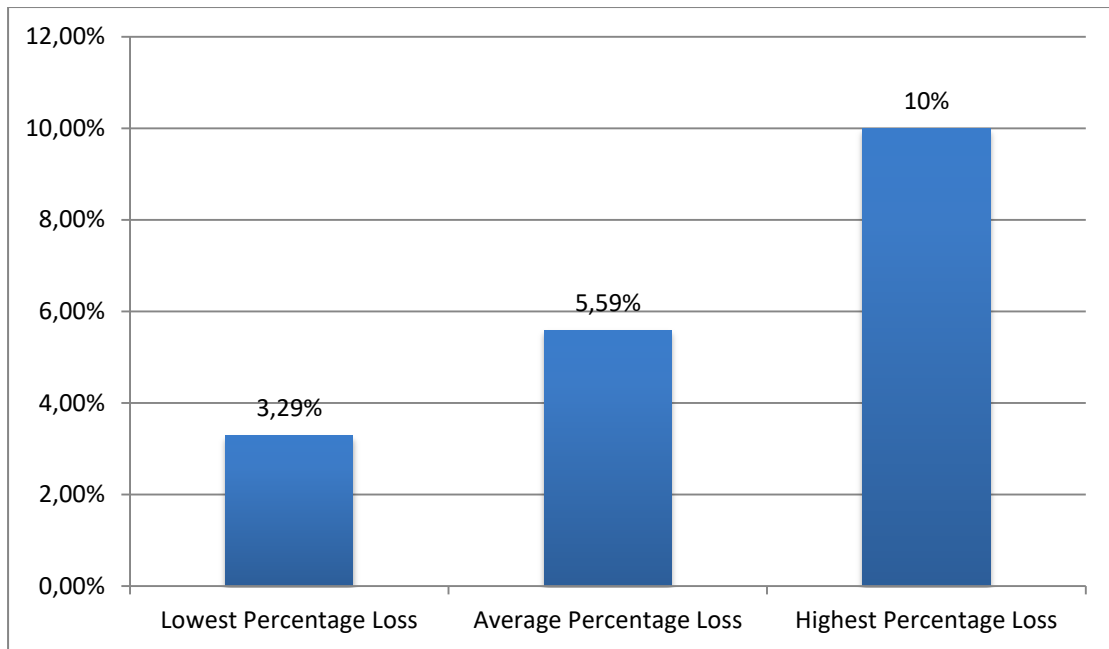


Figure 5: Proportion of Healthcare Expenditure Lost to Fraud and Error: 2011 Report

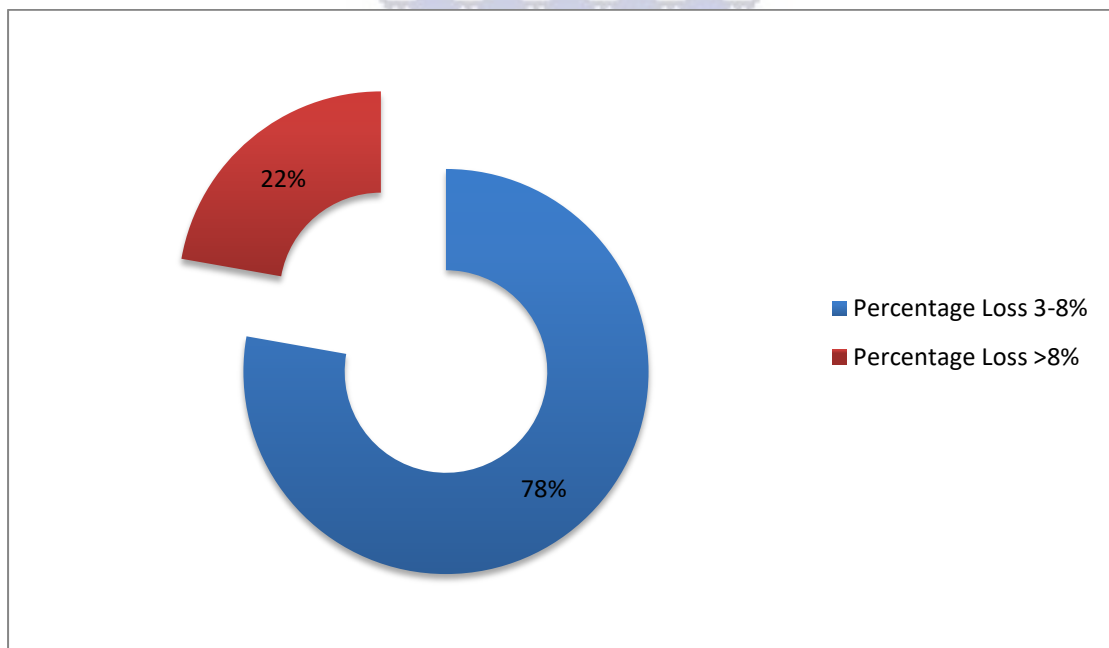


Figure 6: Percentage Loss by Amount: 2011 Report

The range of FFR's for the same exercises was found to be between 0.47% and 7%, with an average of 4.23% (Figure 7). More than 92% of these exercises were between 3-8% (Figure 8).



Figure 7: Frequency of Healthcare Expenditure Lost to Fraud and Error: 2011 Report

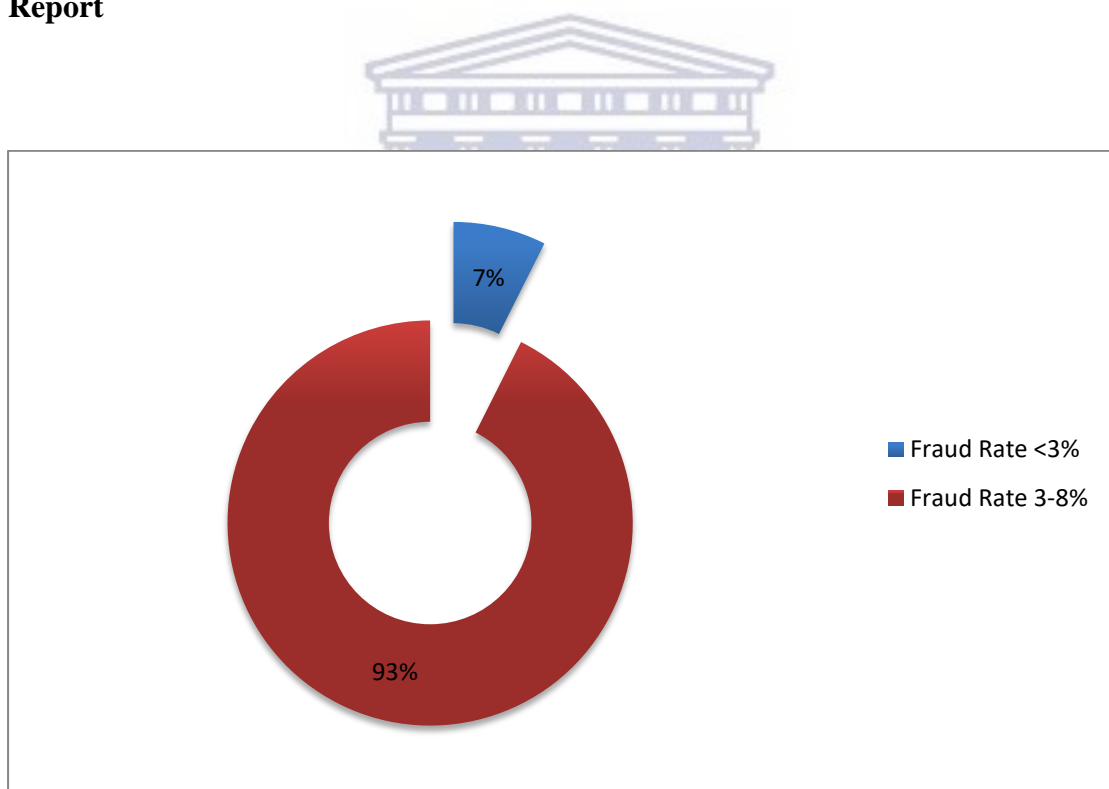


Figure 8: Percentage Loss by Frequency: 2011 Report

These figures were updated in their 2013 report, taking into account exercises from 2010 and 2011 for a total of 92 exercises between 1997 and 2011 compared to the 69 of the 2011 report. From these 92 exercises they found the range of PLR in

healthcare to be between 0.6% and 15.4%, with an average of 6.99% (Figure 9). For the first time 3.45% of the figures had a PLR of fewer than 3%, but more worryingly, the percentage of PLR reported of above 8% increased from 22% to 37.93% (Figure 10).

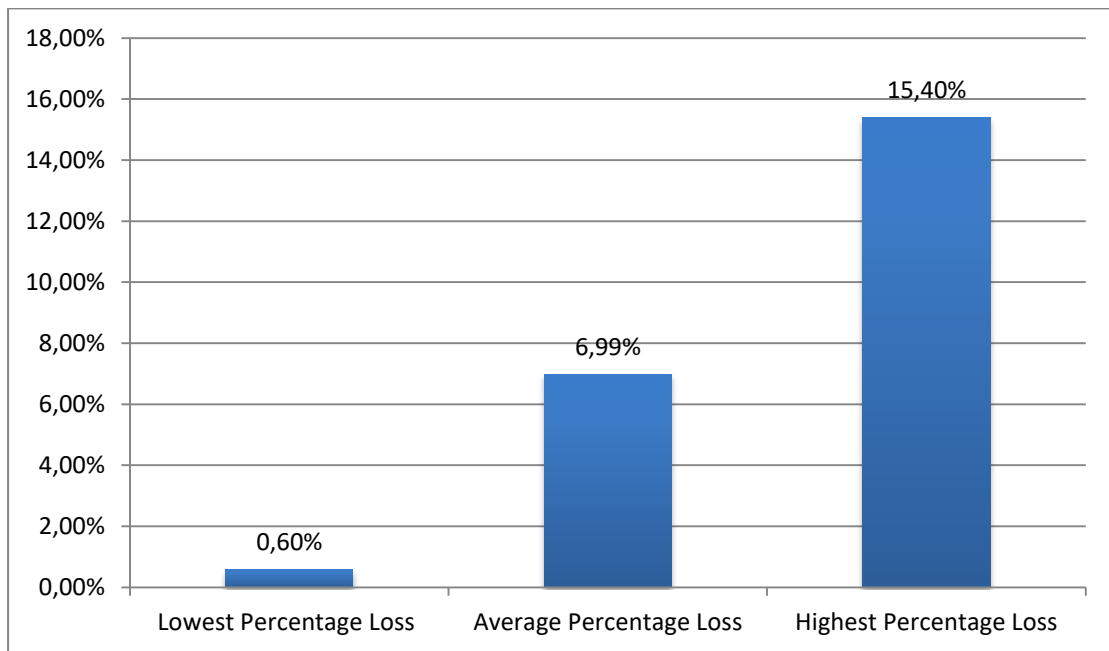


Figure 9: Proportion of Healthcare Expenditure Lost to Fraud and Error: 2013 Report

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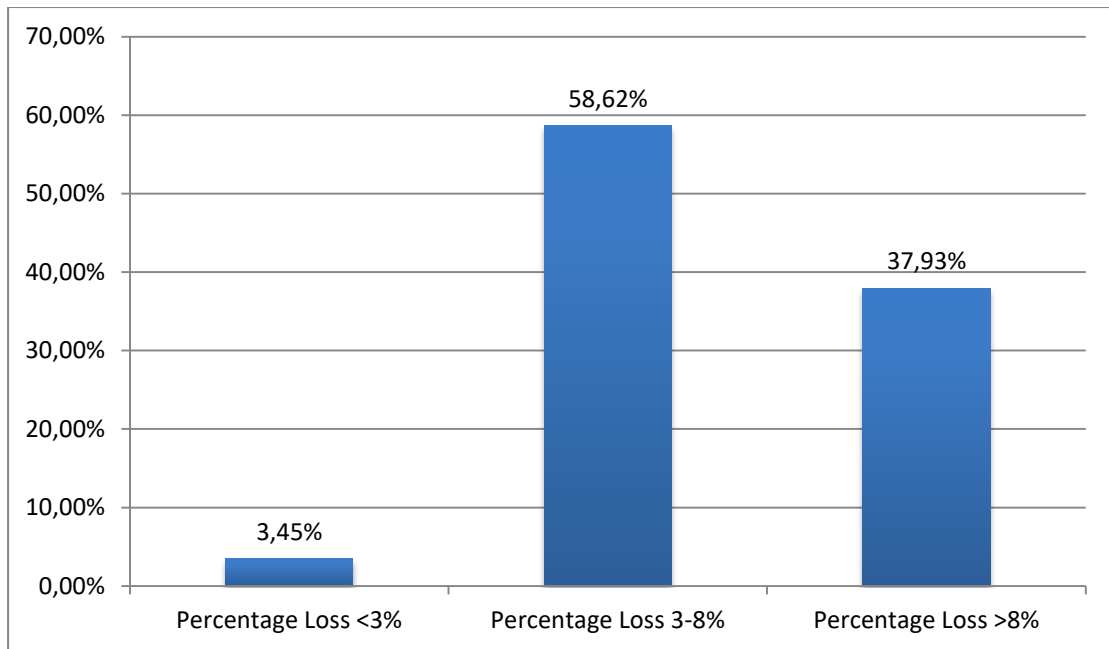


Figure 10: Percentage Loss by Amount: 2013 Report

The average of the PLR also increased from 5.59% in the 2011 report to 6.99% in the 2013 (Figure 11). This might be indicative of the global recession at the time.

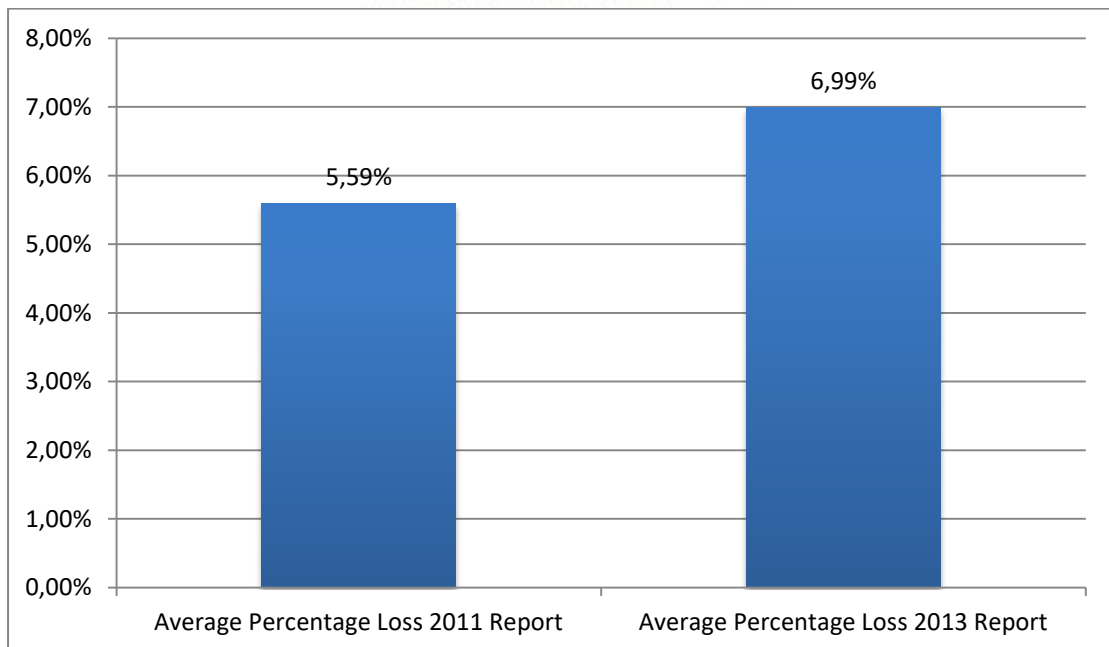


Figure 11: Comparison of Average Percentage Loss of Healthcare Expenditure between 2011 and 2013 Reports

It is clear from the results presented that these exercises give a more accurate representation of actual losses to fraud in the healthcare sector. This data can be tracked and followed over time to determine whether prevention and detection programmes are successful or not. Due to the fact that these risk measurement exercises track actual fraud and error from a statistically valid sample and can follow the results over time makes it one of the better, if not the best way to measure healthcare fraud. However they require accurate and up-to-date healthcare expenditure data to determine actual fraud and error cases. Most medical-aid schemes in South Africa should be able to calculate these figures however, due to the sensitive nature of these figures very few schemes publish the results for public viewing.

Prevention

While it is useful to detect healthcare fraud and catch the perpetrators, efforts should be made to not just detect healthcare fraud but also prevent it. According to the WHO (2011) progress in this regard is being made, specifically in the United States where health systems are more resistant to fraud. In Norway new computer programmes have been found to detect up to 60% of healthcare insurance fraud that prevent payment of these fraudulent claims thus saving money (WHO, 2011). This could potentially save millions worldwide.

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CHAPTER 3

AIM & OBJECTIVES

3.1 Aim

The aim of this study was to determine the extent and amount of dental fraud in South Africa between 2007 and 2015.

3.2 Objectives

To determine:

- the extent of dental fraud as reported by the HPCSA between 2007 and 2015;
- the amount of dental fraud as reported by the major medical aid administrators in South Africa between 2007 and 2015;
- whether dental fraud in South Africa has been increasing or decreasing since 2007 and
- whether there are specific areas in dentistry where fraud is the most prevalent

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CHAPTER 4

METHODOLOGY

4.1 Definition of terms

Although a uniform definition of healthcare fraud and dental fraud exists, every medical aid scheme administrator applies it differently. The marginal areas of what is classified as fraud are sometimes a grey area and open to interpretation by the individual scheme or administrator.

4.2 Background to the study

Healthcare fraud wastes money that could be spent better in the management of patients. The exact amount of healthcare fraud is very difficult to determine, especially in a two-tier healthcare system like South Africa. The amount and cost of dental fraud in South Africa has never been researched. If the amount and cost of fraud in a specific area can be determined, resources can be better used to combat healthcare fraud in the future.

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4.3 Study design

The study design was a retrospective, record-based study.

4.4 Measurements

The number of dental fraud cases in South Africa over a nine year period, and where possible, the value of the fraud was calculated. The number of cases were calculated per dental professional so as to determine the levels of dental fraud per dental profession.

4.5 Establishing contacts and data collection

The HPCSA publishes completed cases against healthcare practitioners on their website on a yearly basis. For the investigated fraud cases known to the HPCSA, no contact was made with the HPCSA besides access to public domain on their website. Although the names of the practitioners found guilty by the HPCSA are listed together with the data, personal information regarding the practitioners was deemed unnecessary towards reaching the objectives of the study and as such was not recorded.

Discovery was initially contacted via email to discuss the proposed research and its aims and objectives. We were put in contact with the operations manager of their forensic services department. Contact was made via email to the operations manager where the researcher was introduced, the aims and objectives of the study were discussed together with our request for the data required from them. As administrators for a large number of medical aids, Discovery sought the permission of the individual medical aid schemes before divulging any information. At no time was any personal information regarding patients, the practitioners or the individual medical aids discussed or recorded.

Similar contact to other medical aid schemes were attempted, but we were repeatedly referred to The Healthcare Forensic Management Unit (HFMU) of the Board of Healthcare Funders (BHF). A similar introduction and request for data was sent to the HFMU. Similarly to Discovery, the BHF did not divulge, discuss or give out any personal information regarding patients.

4.6 Validity and reliability

The author was the only investigator involved in the gathering and interpretation of the data, thereby assuring the standardised recording of all the information presented.

4.7 Statistical analysis of data

The collected data from the HPCSA, Discovery and the BHF were recorded and captured on a Microsoft Excel spread sheet. Because the data was very different for each institution and not readily comparable due to the difference in the interpretation of fraud and fraud categories, no other statistical analysis was carried out on the data.

4.8 Ethical considerations

The protocol was submitted for ethical approval and approved by the University of the Western Cape Faculty and University Research Ethics Committee (Appendix 4). Confidentiality was maintained at all times.



CHAPTER 5

RESULTS

5.1 Introduction

The HPCSA publishes on a yearly basis all finalised, investigated cases for that specific year on its website. These include cases against all healthcare professionals registered with the HPCSA and are not limited to fraudulent activity. Dental professionals registered with the HPCSA include dentists and dental specialists, dental assistants, dental therapists and oral hygienists. Cases of abuse are included with the fraudulent cases reported by the HPCSA. Some practitioners have more than one case against them and each case will be counted as a separate case.

5.2 Response Rate

The HPCSA data was only available from 2007 onwards.

Discovery sent data for all medical schemes that falls under their administration, which adds up to just more than 1.2 million insured lives.

The BHF were only able to obtain permission and data for 40% of the medical aid schemes registered with them. These did however include the dental administrator DENIS as well as Medscheme. Due to a lack of manpower from the BHF, they were not able to list the number of cases per practitioner. The actual number of cases might thus not give an accurate representation of the amount of fraud.

5.3 HPCSA Finalised Cases (2007-2015)

A breakdown of HPCSA cases between 2007 and 2015 are shown in Table 1. Cases are shown for dentists and dental specialists together, as the HPCSA makes no differentiation between general practitioners and dental specialists. Table 2 shows cases against dental therapists for the same period. There were no cases reported against oral hygienists or dental assistants. Since Dental Technicians are not

registered with the HPCSA the HPCSA do not have any fraud cases against any Dental Technicians. It should be noted that these are only cases where the HPCSA found the dental professional guilty, and are not a list of all the cases handled by the HPCSA. Cases were categorised into fraud, clinically related, employment of unregistered person(s) or laboratory, poor record keeping, billing/price, incorrect advertising and unlicensed equipment.

Figures 12 and 13 are a graphical representation of the fraud cases against dentists and dental specialists and dental therapists between 2007 and 2015 respectively.



Dentists and Dental Specialists

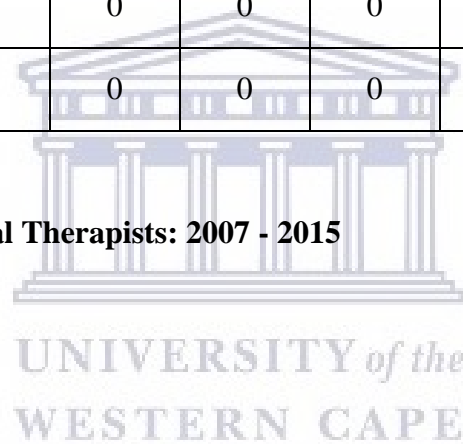
	2007	2008	2009	2010	2011	2012	2013	2014	2015
Fraud	6	9	6	8	10	11	22	13	8
Clinically related	2	11	10	4	2	6	6	6	1
Employ unregistered person or laboratory / Practice while suspended from register	2	0	0	0	0	0	47	2	1
Poor record keeping	0	1	0	0	1	0	0	0	0
Price above agreed pricelist	0	0	0	0	0	1	0	0	0
Unlicensed equipment	0	0	1	0	0	0	0	0	0
Incorrect advertising	0	0	0	0	0	1	0	2	0

Table 1: Finalised Cases with the HPCSA for Dentists and Dental Specialists: 2007 - 2015

Dental Therapists

	2007	2008	2009	2010	2011	2012	2013	2014	2015
Fraud	4	2	12	1	0	1	7	12	3
Clinically related	0	0	0	0	0	0	1	0	0
Unlicensed equipment	0	0	0	0	0	1	0	0	0

Table 2: Finalised Cases with the HPCSA for Dental Therapists: 2007 - 2015



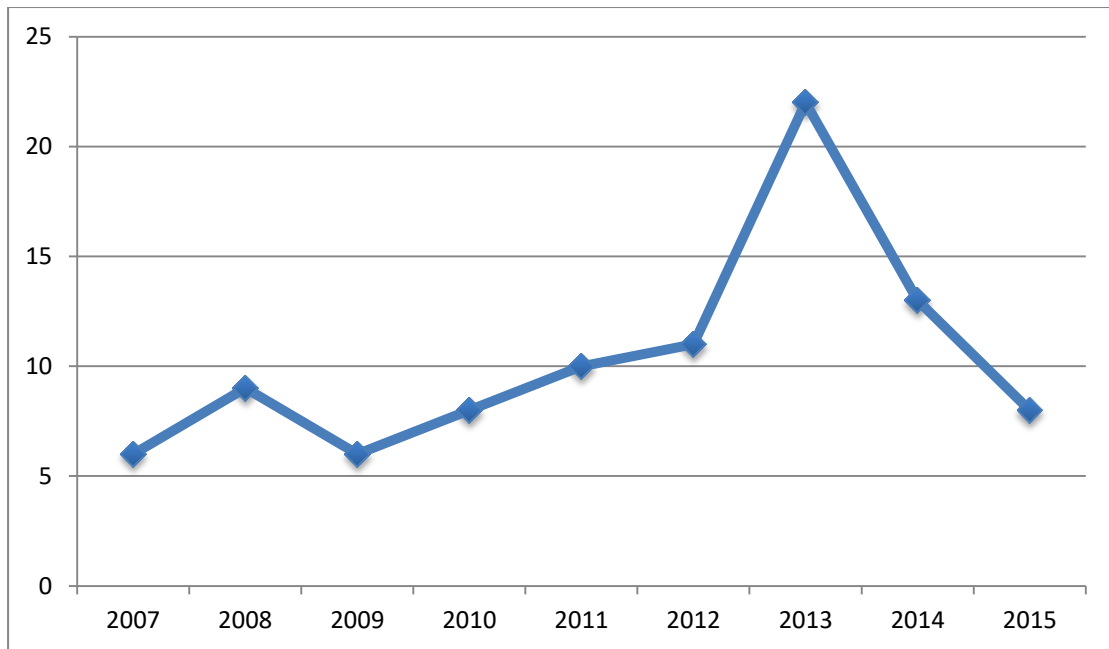


Figure 12: Finalised cases for fraud with the HPCSA for Dentists and Dental Specialists: 2007 - 2015

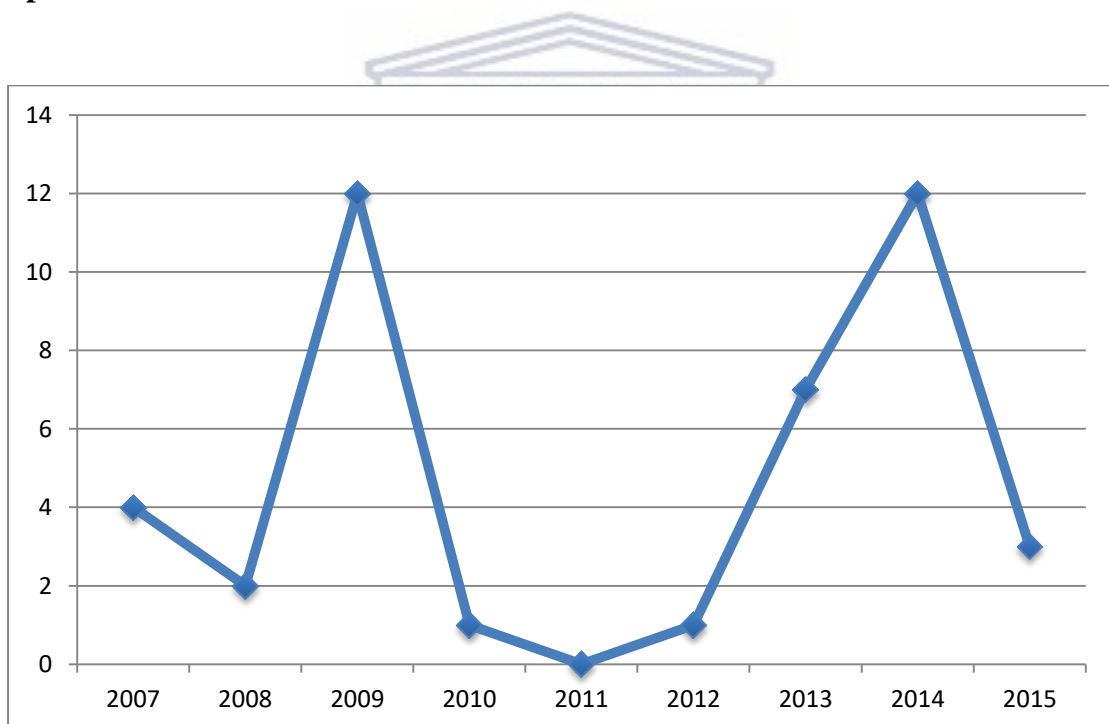


Figure 13: Finalised cases for fraud with the HPCSA for Dental Therapists: 2007 - 2015

Cases against dentists and dental specialists at the HPCSA reached a maximum in 2013 with 22 cases. The majority of the fraud cases (19) in 2013 were by a single practitioner. The same practitioner was responsible for 47 guilty charges of

employing an unregistered laboratory/person as well. In 2014 a single practitioner was also responsible for half of the fraud cases.

The data for dental therapists look very different than that of the dentists and dental specialists. Cases against dental therapists reached a maximum in both 2009 and 2014 with 12 cases. In between those years the cases dropped to zero in 2011.

The total number of dental fraud cases can be seen in Figure 14. A linear trendline shows the increasing trend of dental fraud in South Africa from actual HPCSA fraud cases between 2007 and 2015 for all dental professionals.

The overall picture of the HPCSA cases results in a gradual increase in the overall number of cases for all dental professions. Due to the numbers being small and easily overshadowed by one or two practitioners with a large caseload against them, it is difficult to track the decrease of fraud per dental profession.

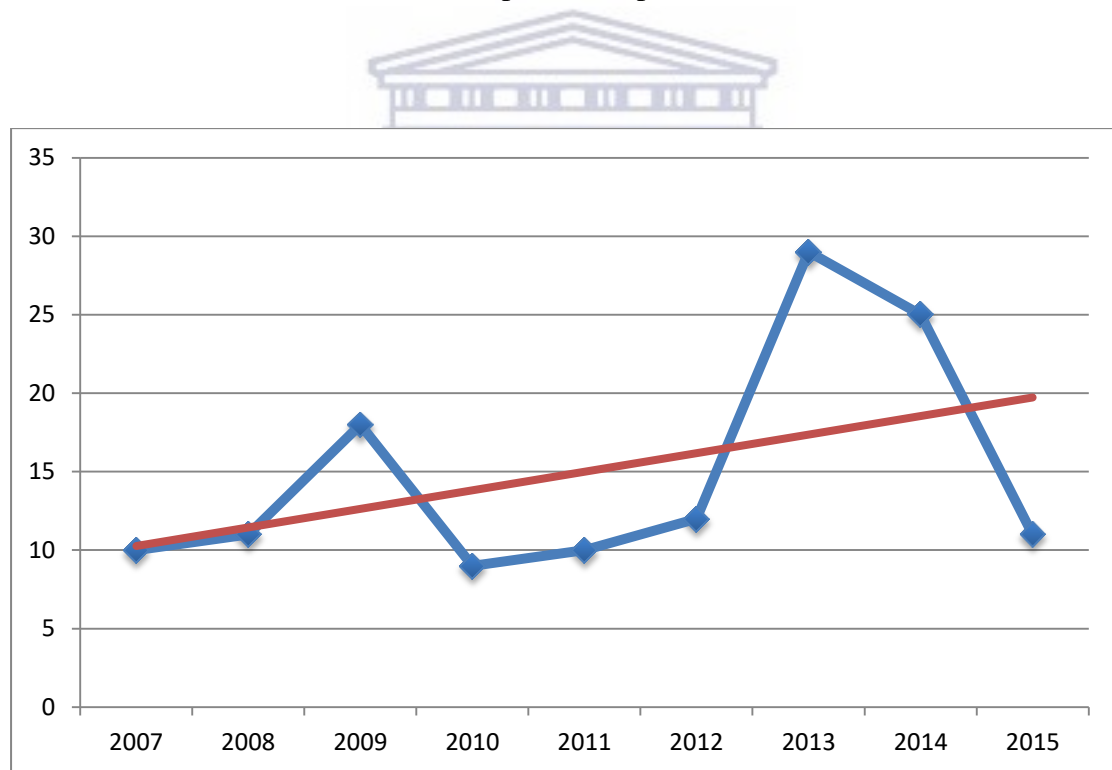


Figure 14: Finalised cases of fraud with the HPCSA for all Dental Professionals: 2007 - 2015

5.4 Discovery Cases (2007 – 2015)

Table 3 shows the number of dental fraud cases per dental profession as found on all medical aid schemes under the administration of Discovery between 2007 and 2015. Table 4 shows the value in South African Rand of dental fraud cases per dental profession as found on all medical aid schemes under the administration of Discovery between 2007 and 2015. Cases are shown for dentists and dental specialists together, as Discovery makes no differentiation between general practitioners and dental specialists. There were no cases reported against oral hygienists or dental assistants.

Figures 15, 16 and 17 shows graphical representations of the number of fraud cases for dentists, dental therapists and dental technicians individually between 2007 and 2015. Figures 18, 19 and 20 show the value, in South African Rand of fraud cases for dentists, dental therapists and dental technicians individually between 2007 and 2015.



Discovery: Number of Cases

	2007	2008	2009	2010	2011	2012	2013	2014	2015
Dentists	179	41	62	114	62	72	109	126	63
Dental Therapists	1	5	7	9	9	5	17	19	22
Dental Technicians	1	0	0	3	37	108	134	29	2

Table 3: Number of fraud cases at Discovery (2007 – 2015)

Discovery: Value of Cases

	2007	2008	2009	2010	2011
Dentists	1,165,096.14	524,781.18	311,554.43	1,652,967.74	515,638.24
Dental Therapists	0.00	9,467.06	2,963.90	338,235.38	162,348.04
Dental Technicians	0.00	0.00	0.00	3,180.00	102,065.22
	2012	2013	2014	2015	TOTAL
Dentists	3,965,083.53	1,217,121.33	1,470,813.53	2,791,432.34	13,614,488.46
Dental Therapists	112,192.80	612,369.38	1,267,001.50	772,012.01	3,276,590.07
Dental Technicians	440,284.11	548,688.21	82,000.02	42,165.99	1,218,383.55
					18,109,462.08

Table 4: Value of fraud cases at Discovery (2007 – 2015) in South African Rand

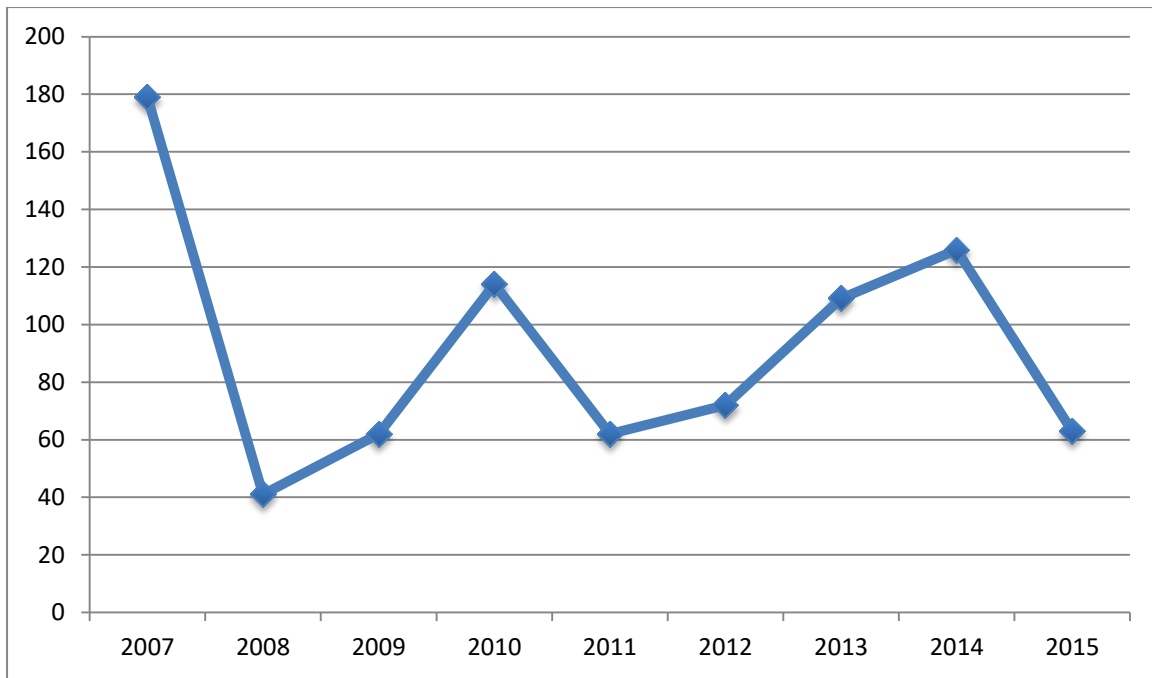


Figure 15: Number of fraud cases at Discovery for Dentists, 2007 - 2015

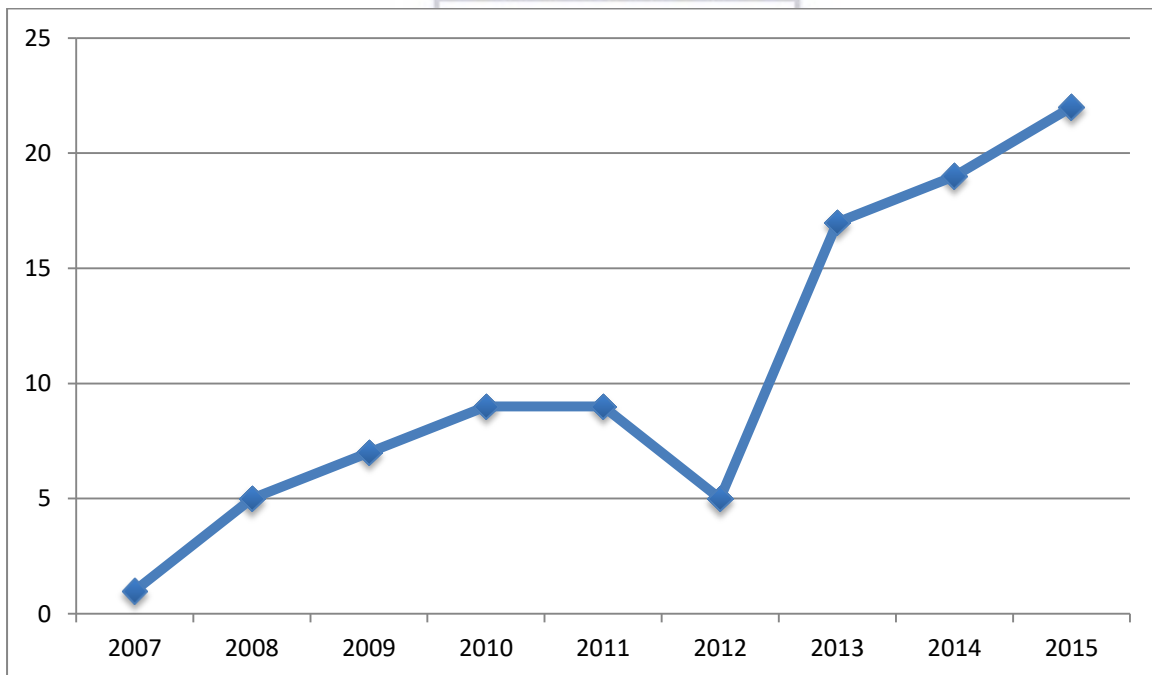


Figure 16: Number of fraud cases at Discovery for Dental Therapists, 2007 - 2015

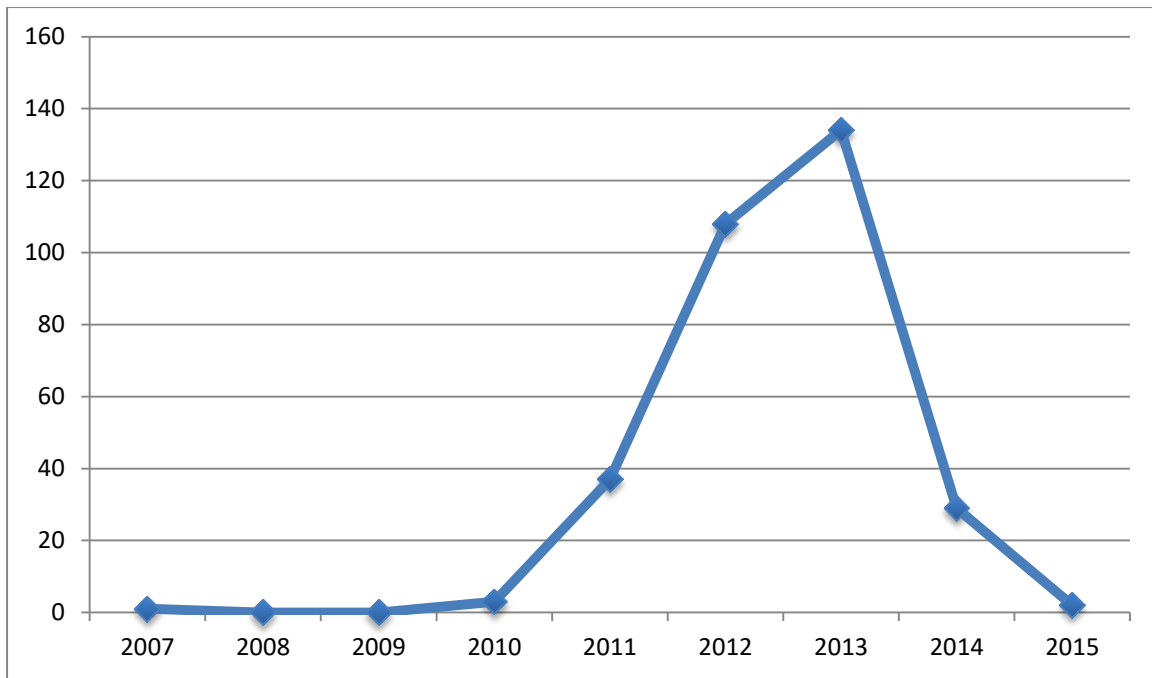


Figure 17: Number of fraud cases at Discovery for Dental Technicians, 2007 – 2015

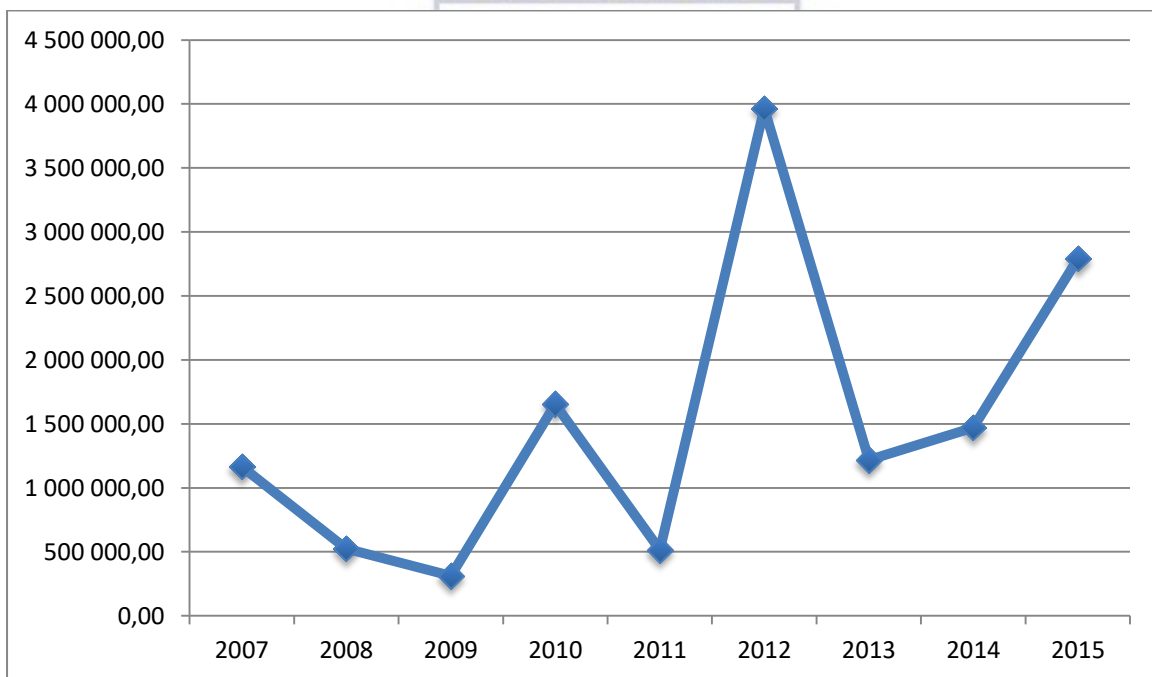


Figure 18: Value of fraud cases at Discovery for Dentists, 2007 – 2015 in South African Rand

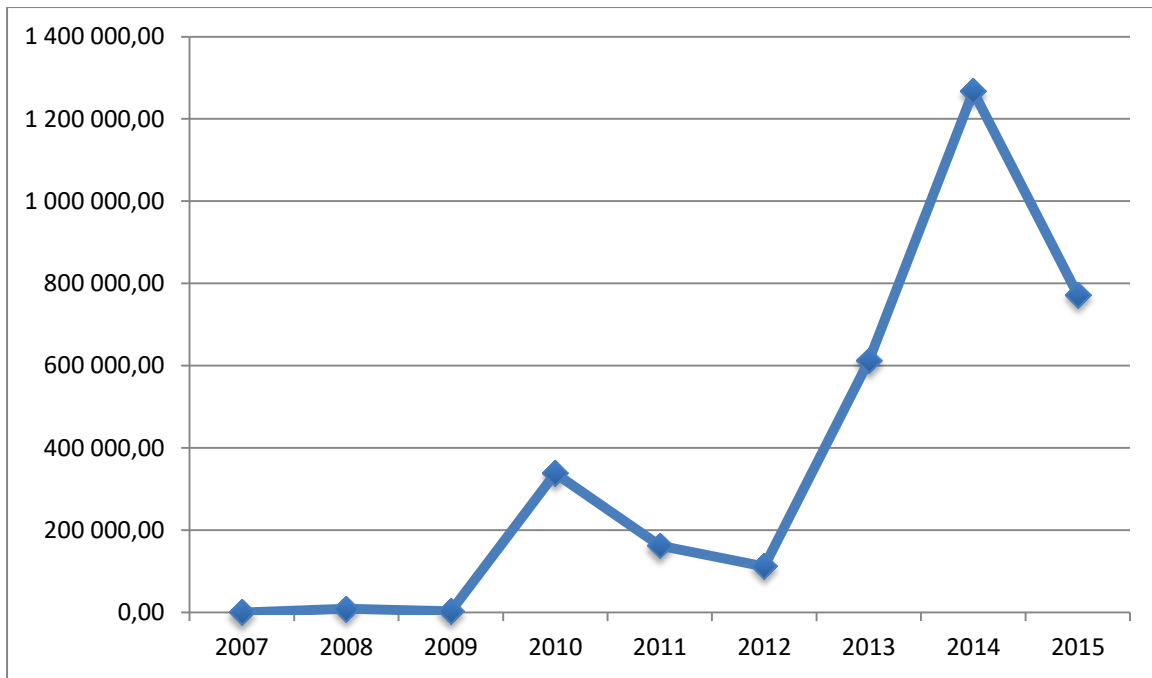


Figure 19: Value of fraud cases at Discovery for Dental Therapists, 2007 – 2015 in South African Rand

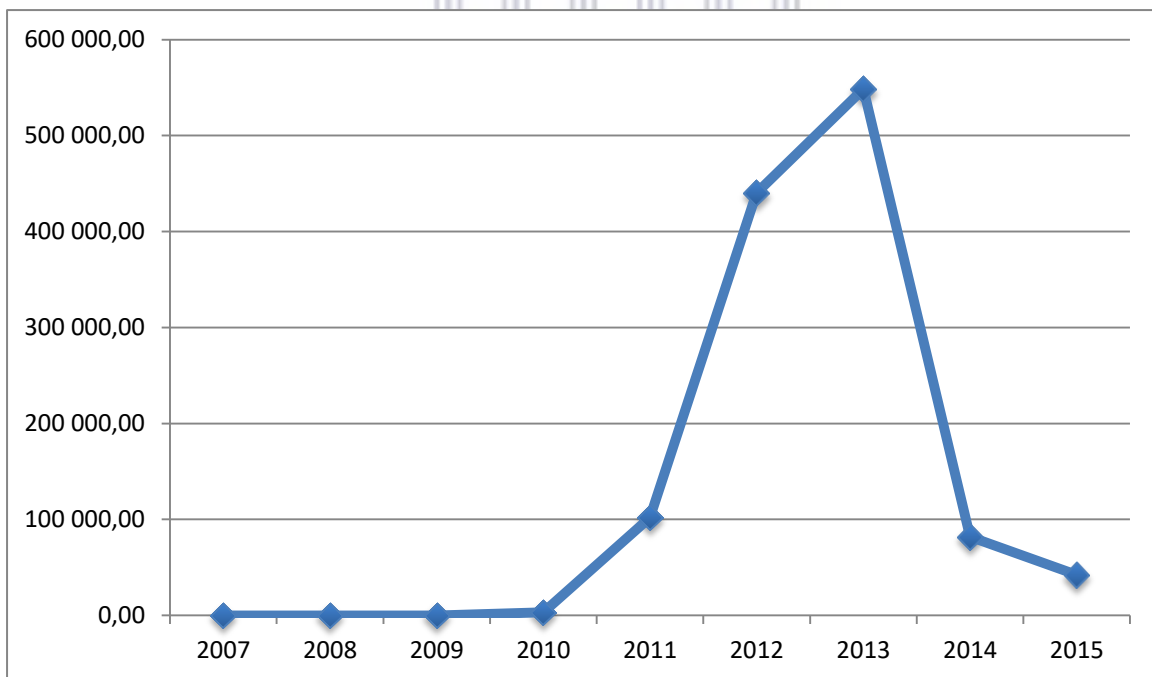


Figure 20: Value of fraud cases at Discovery for Dental Technicians 2007 – 2015 in South African Rand

The Discovery data shows three distinct pictures for each dental profession. The overall picture for the dentists shows a gradual decrease in the number of fraud cases, although the values are still increasing. The number of fraudulent cases involving dentists as investigated by Discovery has decreased from a high in 2007 with 179 cases to 2015 with 63 cases. Fraud by dental therapists showed a remarkable increase in both number of cases as well as the value of the cases. Cases involving dental therapists have increased from 1 in 2007 to 22 in 2015. The number of registered dental therapists is just more than 10% of the number of registered dentists in South Africa on a yearly basis, yet the value of fraud for dental therapists is nearly 25% of that of the dentists. The dental technicians showed very little fraud, except for a larger caseload in 2012 and 2013 respectively. Dental technician cases started at 1, climbed to a maximum of 134 in 2013, then decreased again to 2015 with 2 cases.

The total value of fraudulent cases involving dentists from 2007 to 2015 accumulate to just more than ZAR13.6 million. The total for all dental professionals at Discovery for the same time period adds up to ZAR18.1 million.

5.5 BHF Cases (2007 – 2015)

Table 5 shows the number of dental fraud cases per dental profession as found in the BHF collated data between 2007 and 2015. Table 6 shows the value in South African Rand of dental fraud cases per dental profession as found in the BHF collated data between 2007 and 2015. Cases are shown for dentists and dental specialists together, as the BHF makes no differentiation between general practitioners and dental specialists. There were no cases reported against oral hygienists or dental assistants.

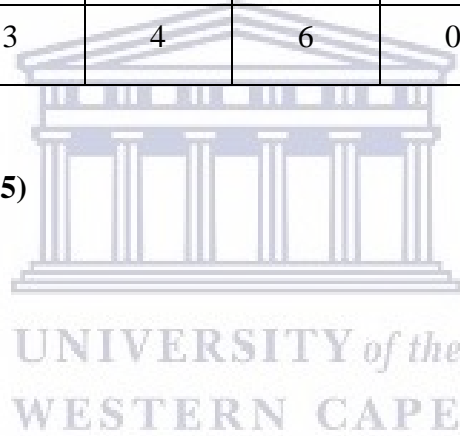
Figures 21 and 22 show graphical representations of the number of fraud cases for dentists and dental therapists respectively between 2007 and 2015. Figures 23 and 24 and 20 show the value, in South African Rand of fraud cases for dentists and dental therapists respectively between 2007 and 2015.

Between 2011 and 2013 the BHF went through a period of change in the fraud detection system and approach with a result of very few cases recorded during that period.

BHF: Number of Cases

	2007	2008	2009	2010	2011	2012	2013	2014	2015
Dentists	6	7	2	4	1	6	3	4	9
Dental Therapists	10	3	4	6	0	0	10	4	5

Table 5: Number of fraud cases at BHF (2007 – 2015)



BHF: Value of Cases

	2007	2008	2009	2010	2011
Dentists	673,277.00	662,358.45	423,000.00	110,000.00	11,000.00
Dental Therapists	629,497.07	102,654.47	45,042.20	97,926.00	0.00
	2012	2013	2014	2015	TOTAL
Dentists	8,314.46	133,122.91	760,703.00	1,281,226.23	4,063,002.05
Dental Therapists	0.00	1,975,957.51	1,078,552.65	674,000.00	4,603,629.90
					8,666,631.95

Table 6: Value of fraud cases at BHF (2007 – 2015) in South African Rand

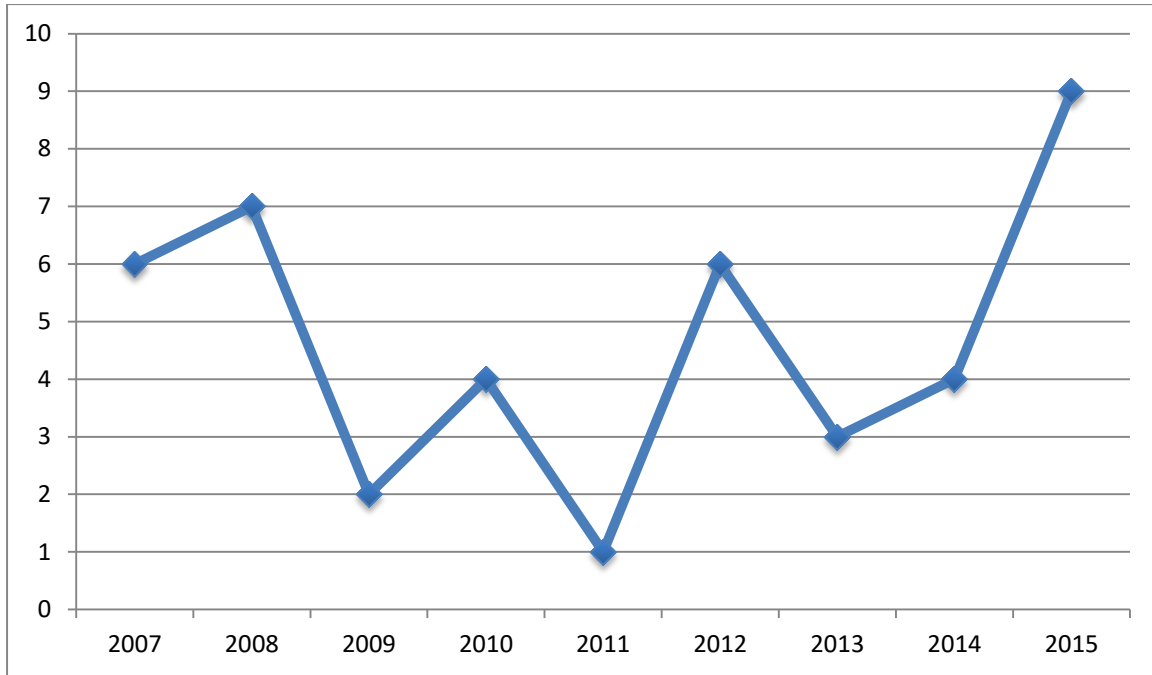


Figure 21: Number of fraud cases at BHF for Dentists, 2007 - 2015

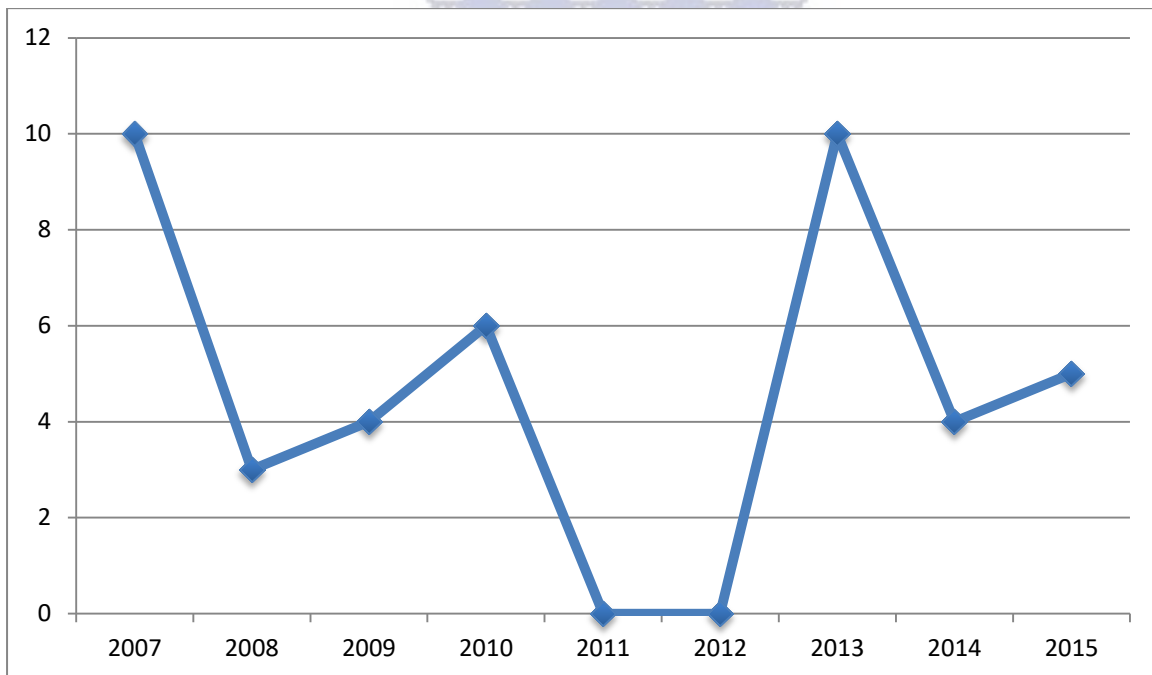


Figure 22: Number of fraud cases at BHF for Dental Therapists, 2007 - 2015

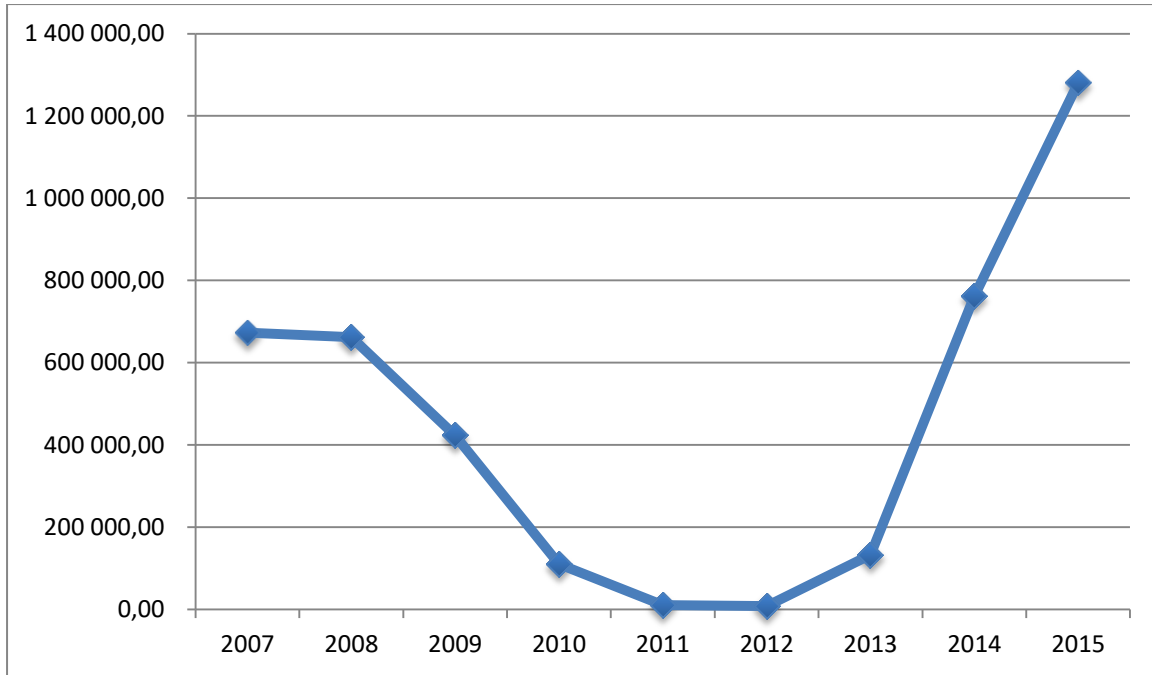


Figure 23: Value of fraud cases at BHF for Dentists, 2007 – 2015 in South African Rand

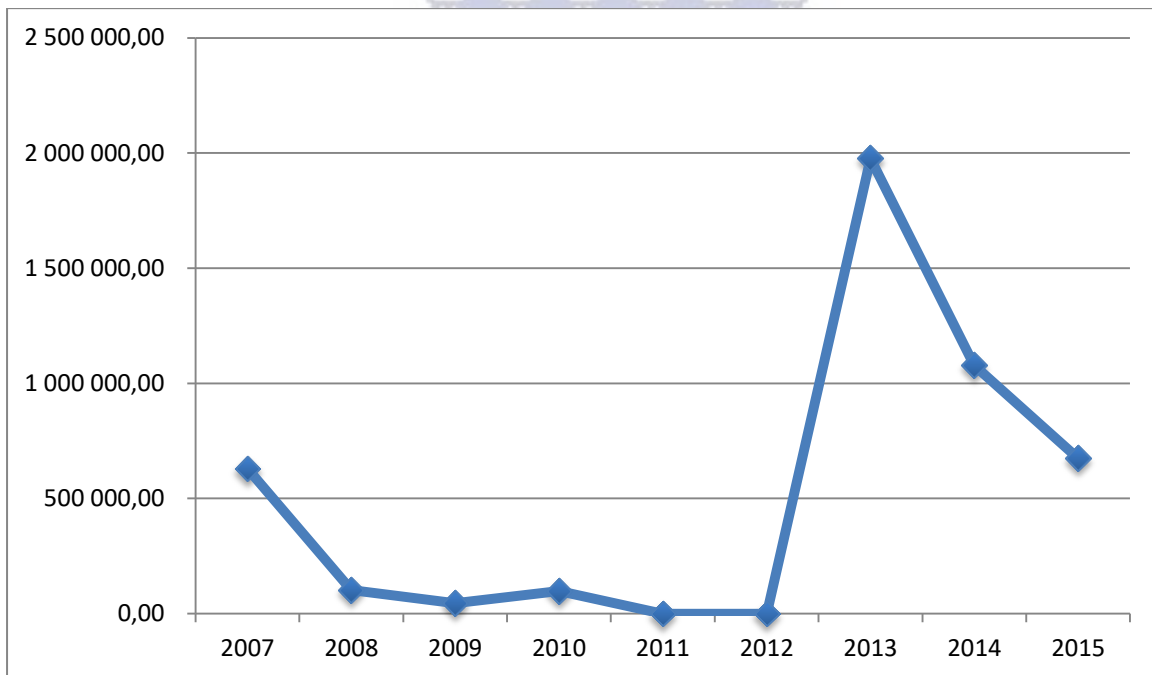


Figure 24: Value of fraud cases at BHF for Dental Therapists, 2007 – 2015 in South African Rand

Unfortunately the BHF were not able to provide data for all medical aid schemes that are members of BHF but only for 40%. Due to a lack of human resources, the number of fraud cases does not take into account more than one case per practitioner at a time and as such the actual number of fraud cases may be severely under-estimated.

With a change in the fraud detection system as well as approach very little data exists between 2011 and 2013. If we however extrapolate the value of dental fraud from the BHF data for all medical aid scheme members of BHF it is found to be ZAR 21.6 million over the nine year period.



CHAPTER 6

DISCUSSION

It is clear from the results of the present study that it will always be impossible to determine the exact amount of healthcare or dental fraud in any healthcare system worldwide. We can estimate the total amount of fraud, and we can give evidence to the amount of fraud that we can identify or detect, but these figures are often under-estimates. Many patients are victims to healthcare fraud without being aware of it.

It is still a worrying statistic that dental fraud over a nine year period in South Africa is estimated to be nearly ZAR 40 million. Even this figure is an under-estimate since it does not include the HPCSA data as they do not specify the value of the fraud. In addition, fraud appears to be on the increase in most cases.

A recent report by KPMG (2012) found that only 0.9% of healthcare fraud in South Africa was reported to the South African Police Service (SAPS) between 2001 and 2009. This is a very worrying statistic; especially taken into account the stance other countries are taking against fraud. As mentioned previously, the Attorney General's office in the USA listed healthcare fraud as one its most important priorities, second only to violent crime (Hannigan, 2006). With the high levels of violent crimes in South Africa it may be easy to argue why human resources are not being used to fight healthcare fraud but rather being spent on fighting violent crimes.

With very few cases being reported to the SAPS or even the HPCSA, there is no central database for reporting healthcare or dental fraud in South Africa. This makes tracking the total extent of fraud very difficult. There is also a lack of co-operation between the individual corporate bodies involved by working together they can help each other to decrease healthcare fraud. This situation is also prevalent abroad. No dental or medical council reports fraud by its members to the other international medical or dental councils. This has been recently illustrated by a case in this country where a South African born dental practitioner was jailed in the UK for dental fraud, but returned to South Africa and has continued to practice despite this. When a person is jailed for fraud and prevented from

continuing his/her practice in a certain country, it may be prudent for the authorities to be informed.

Many medical aid schemes are unwilling to share their data to help combat fraud and this could also be why so little healthcare fraud is reported to the SAPS. Medical aid schemes spend much time and effort recovering money lost from members due to fraud and once recovered, do not feel the need to report the perpetrators.

Fraud seems to be ever increasing with all dental professionals, but more so with dental therapists. Dental therapists represent less than 10% of the registered dental professionals with the HPCSA, but the value of fraud committed by them by value is more than 30% of the total value of fraud committed by dental professionals.



CHAPTER 7

CONCLUSION & RECOMMENDATIONS

One of the main hurdles in the fight against healthcare fraud not only in South Africa, but also on a global scale is the lack of co-operation between the different role players. Very few medical aid schemes or administrators share fraud data among themselves, with the HPCSA and even less with the SAPS. For healthcare fraud to be reduced this situation has to change. All healthcare fraud above a certain threshold should have to be reported to the SAPS as well as the HPCSA and practitioners with fraud above a certain value should be taken off the register and not be allowed to practice for a period of time at least. The FDI (World Dental Federation) could be a body that could institute an international register to list practitioners worldwide who have committed dental fraud.

Billions of dollars, euros, pounds and rand are lost annually to fraud with no clear light at the end of the tunnel. Prevention of fraud could save millions of rand that could be ploughed back into the delivery and provision of healthcare. To achieve this, it is important that all role-players in the South African healthcare milieu take a zero tolerance policy approach and work together to fight and combat medical and dental healthcare fraud. It is important to remember that not all medical and dental professionals commit fraud; the profession is filled with ethical, honest and dedicated men and women. However, it is only a small percentage that commits fraud, but this small percentage however is on the increase.

Further studies are needed on a regular basis to track the change in dental fraud in South Africa.

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Appendix 1: Ethics Approval

Date: 3rd May 2013

For Attention: Dr Renier Putter

Department of Community Dentistry

Faculty of Dentistry

Tygerberg Campus

Dear Dr Putter

STUDY PROJECT: Dental fraud in South Africa over a ten year period (2003-2012)

PROJECT REGISTRATION NUMBER: 13/4/33

ETHICS: Approved

At a meeting of the Senate Research Committee held on Friday 13th May 2013 the above-mentioned project was approved. This project is therefore now registered and you can proceed with the study. Please quote the above-mentioned project title and registration number in all further correspondence. Please carefully read the Standards and Guidance for Researchers below before carrying out your study.

Patients participating in a research project at the Tygerberg and Mitchells Plain Oral Health Centres will not be treated free of charge as the Provincial Administration of the Western Cape does not support research financially.

Due to the heavy workload auxiliary staff of the Oral Health Centres cannot offer assistance with research projects.

Yours sincerely



Professor Sudeshni Naidoo

Deputy Dean: Research