



**UNIVERSITY OF
KWAZULU-NATAL**

**The relationship between the level of knowledge and opportunities of
fraudulent activities amongst members of the Medical Scheme Industry**

By

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degree of Master of Business Administration**

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Abstract

The nature of a medical scheme is a complex one; this is due to the benefit structure, language and terminology used by medical scheme companies. Additionally, in a multidisciplinary healthcare sector, various role players possess different expert knowledge. The challenge that has been identified, is that patients may be susceptible to making uninformed decisions, due to not being equipped with information that is simple to understand by the medical scheme and relevant patient-specific information provided by the various healthcare professionals. Disclosure of information that is straightforward by the medical scheme and the right of the patient to receive information that relates to disease management will enable the patient to be proactive about the quality of information that they must gain from the healthcare professional. This study shall investigate the knowledge, perceptions and understanding about medical schemes functionality and the opportunities of fraudulent activities that can be within the medical scheme industry. The research method applied in this study was a quantitative approach, which involved the recruitment of 100 participants. A descriptive survey was distributed to the eligible participants. Thereafter, the data was collected and analyzed using an SPSS data analysis system, which indicated that participants had a better understanding and level of knowledge for factors such as Co-payments, Prescribed Minimum Benefits, Designated Service providers and fraudulent activities in the medical scheme Industry. Unlike, responses provided for benefit options, scheme rules and legalities, participants showed a lack of understanding. The connection between how much information the participants knew about medical schemes and the occurrence of fraudulent activities was not achieved, as the responses were either good for one section and bad for the other. Going forward, it can be recommended that medical scheme companies provide their members with easy to understand information about the key-features of the scheme and most importantly that healthcare professional's open-up to sharing information with their patients, to enable them to make good decision.

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Chapter one

Introduction

1.1 Introduction

The business of a medical scheme involves undertaking a liability or expense in return for a premium or contribution (medical schemes, 2004). It significantly contributes towards the sustainability of private healthcare (Kaplan and Ranchod, 2015). The role of information imparted to an individual is pivotal because it allows individuals to make better informed decisions. In relation to medical schemes, the role of information requires that clear, straightforward communication be provided to its members, as well as the healthcare professionals, who possess expert knowledge must be able to share health-related information with patients. Asymmetries of information cannot co-exist in an industry where the role of information is so important, in order to assist in making knowledgeable decisions and block out the likelihood of fraudulent activities (Rispel, De Jager and Fonn, 2004).

1.2 Motivation of the study

The medical scheme business is fast growing, as more and more individuals seek to enjoy the privileges of private healthcare. The impact of increasing communicable and dreaded diseases such HIV and Cancer means that medical schemes are paying out more in claims. Moreover, individuals (members) who belong to a medical scheme, experience dissatisfaction and frustration with the decreased value of benefit options and increasing contributions. Members of the schemes find it difficult to understand the relationship between decreasing benefits and increasing healthcare costs. Individuals will have to be informed about medical schemes, in order for them to be able to have the capability and certainty, that they will have the ability to confidently assess the information provided to them by their medical scheme, pertaining to selecting benefit options that are best suited for their healthcare needs and affordability (Qunicy, 2014).

The motivation of the study is based on the need for member's medical scheme, to be informed and gain more knowledge about certain facets of the medical scheme

policy, such as language, terminology and benefit structure. Also, the paternalistic approach is still commonly practiced by some healthcare professionals (Grunloh, Myreleg, Cajender and Rexhepi, 2018). Patients are not involved, engaging and giving informed consent to doctors and other healthcare professionals before a conclusive decision is taken. This is due to the limited expert knowledge that patients have about their health problems and thus give-up all power to and rely on the doctor to make decisions on their behalf. The patient becomes vulnerable and trusting of the doctor's intentions. However, some healthcare professionals take advantage of the helplessness of the patient and use their skills for their own personal benefits and not in the best interest of the patient.

1.3 Focus of the study

This research study will focus on the role information sharing, in a multidisciplinary healthcare environment and the significance of sharing this information with individuals in order for them to make informed decisions. This research study will focus on whether participants of the study possess a general level of knowledge about their medical schemes, paying particular focus to contributions, minimum benefits, fraudulent activities and scheme rules.

1.4 Problem statement

Knowledge can be described as an understanding of information. It is based on facts or a skill that is acquired through experiences or education, be it theory-based (explicit) or practical (implicit). in a multidisciplinary environment of the healthcare sector, individuals have to interact with many different healthcare providers, who all possess expert information that should be shared with patients, in order to assist them in making informed decisions (Wikipedia, 2017). If an individual is not armed with useful and relevant information for their healthcare needs, then a person cannot take informed decisions.

The main focus is the private healthcare sector, where the issues of concern stem from contributors, the medical scheme companies and healthcare providers.

Although, information is freely available to any individual who requires it, through social media, newspapers, television and scheme information brochures, barriers can still be created, if the information is not communicated clearly in a language that is easy to understand. That information becomes useless and can't be appreciated. Healthcare providers have a legal duty, as determined by the national health act to share learned knowledge with consumers of healthcare. They have a professional obligation to provide them with information that will be able to positively influence any health-related problems (Kaplans and Ranchod, 2015).

The prevalence of the absence of sufficient information encourages individuals to make uninformed decisions. The inability to make informed decisions opens up the individual to vulnerability, fear and opportunity to be targeted for fraudulent activities in this sector. This is how members can become suitable targets for opportunities of fraudulent activities. Fraud in the private healthcare sector is a white collar crime that is carried out by healthcare providers (Ogonbanjo and Van Bogaer, 2014). As much as medical schemes have invested resources costing millions into preventing this criminal behavior of fraud and corruption, perhaps turning the focus onto their members to determine whether a relationship exists between the role of information held by the members to make informed decisions and the opportunity of fraudulent activities in this environment.

1.5 Research Objectives

Objective 1:

To investigate whether members hold knowledge about their medical schemes in order to take informed decisions?

Objective 2:

To investigate whether members have knowledge about the opportunities of fraudulent activities within the medical scheme industry?

Objective 3:

To determine if a relationship exists between members having knowledge about medical scheme and the opportunities fraudulent activities.

1.6 Significance of the study

The considerations made from the research findings, will be intended to entice members of society, specifically individuals belonging to medical schemes to be more proactive when it comes to their health. This study brings to mind, that healthcare professionals move away from the paternalistic approach of delivering services to their patients, to a patient-centred approach where the healthcare professional particularly the doctor will engage and involve the patient more, during the process to achieving healthcare outcomes (Grunloh, Myreleg, Cajender and Rexhepi, 2018). Patients will appreciate that it is a legal right for the doctor to share acquired knowledge with them. The healthcare professional has a moral duty and obligation to act and perform services in the best interest of the patient. Additionally, medical scheme companies will have an understanding of which elements of the policy wording that members struggle to understand. Therefore, with this information the schemes will be able to provide policy content that is easily comprehensible.

1.7 Research Methodology

The method of research used in this study was of a descriptive nature. The research approach that was applied was quantitative. A sample size of 100 participants was selected by the researcher, due to the different operational sites and branches of both at Wits RHI and Medirite Pharmacies. The researcher applied self-judgment to choose Johannesburg as being well-located to recruit the participants because of the ease of accessibility and availability of the participants. The technique used for data analysis was the SPSS data analysis system and comparisons were determined using Spearman's correlation coefficient. The method of data collection used was a descriptive survey which consisted of questions that were used to examine the knowledge, perceptions, understanding and attitudes that participants held about their medical schemes and fraud.

1.8 Limitations of the Research Study

- The limitations anticipated from the survey responses, were based on questions that were not attempted or answered, by being left blank. A blank response was interpreted as being invalid or a negative response, which would not contribute to the data analysis.
- Secondly, participants who consented to partaking in the survey but did not meet the criteria. Some participants deceptively consented to partaking in the study but knew beforehand that they did not meet criteria.
- Delay of getting receiving online administered questionnaires. Participants were advised of deadline or appropriate date for the submission of the surveys, but some recruited participants, either never responded on the survey or submitted days after the deadline date.
- The researcher could not reach out to all operational branches at Wits RHI and Medirite Pharmacies because of time and cost implications.

1.9 Chapter Outline

Chapter 1: Introduction

This chapter introduces the environment of the study, also paying emphasis on the motivation, focus and significance of the study. The chapter presented the research objectives, research questions and gave a brief synopsis of the research methods that were used.

Chapter 2: Literature Review

This chapter offered a much bigger explanation of the reviewed literature gathered from other studies that drew conclusion about the problem statement. Fundamental to this chapter is the discussion of topics such as the comparison of public and private health funding, medical scheme industry, cost sharing strategies, health insurance products, the important role of information sharing in the private health sector and current opportunities of fraudulent activities affecting the medical scheme industry.

Chapter 3: Research Methods

The outline of this chapter includes methods that were used to establish the study design, recruitment and selection process of participants, the steps followed to achieve a valid and reliable data collection instrument and data analysis methods are discussed.

Chapter 4: Research Findings

This chapter unlocks the findings collected from the analyzed data. The findings are represented with Diagrams, table, graphs and pie charts. The Correlation coefficient is tested to determine the relationship between the variables.

Chapter 5: Interpretation and Discussion of Results

In this chapter the results are interpreted and discussed in relation to the research objectives. The results are discussed in relation to the past literature reviewed in chapter two.

Chapter 6: Recommendations and Conclusions

Recommendations based on the research findings are made, gaps identified from past literature are highlighted; conclusions are made based on the objectives of the study.

1.10 Chapter Summary

This Chapter gave a brief overview of the background of the study, the motivation, focus and significance of the study to the private healthcare sector. The problem statement described the issue that was addressed by the research study. The research objectives and research questions provided guidance for the study. The methods used to achieve the research design, target population, construction

of the research instrument were briefly explained and the limitations that affected the study were provided. The next chapter will offer a more detailed discussion of this research.

Chapter Two

Literature Review

2.1 Introduction

The business of a medical scheme involves undertaking a liability or expense in return for a premium or contribution (medical schemes, 2004). It contributes significantly towards the sustainability of private healthcare (Kaplan and Ranchod, 2015). A medical scheme will assume the responsibility for the provision of obtaining a relevant health service, which includes any health-related treatment to any person, to be administered by a qualified health care professional. Furthermore, this chapter takes a look at the nature of private health funding, highlighting contributors such as restricted and open schemes, Health insurance products and Cost sharing strategies. (Overview of the South African Healthcare System Part one, 2003).

As a cost containment strategy, Out-of-Pocket payments are catastrophic and cause significant financial problems to those households that are poor and cannot afford such payments, this payment falls under strategies implemented by the schemes for cost-sharing. The nature of medical scheme is a complex one, therefore categorisation of the benefits into benefit options, allows for simpler breakdown of benefit options (Kaplan and Ranchod, 2015).

The South African healthcare system before 1994 resembled a failing system that was centered on serving the white minority, while the majority of black people were subjected to poor healthcare service delivery. The role of information sharing in the health sector critically analyses the relationship between the asymmetries of information, fraud and corruption (Rispel, De Jager and Fonn, 2015). The argument presented in this literature review is that the richness of shared information, to which individuals healthcare have access to, is very limited. This is because the multidisciplinary environment of the health sector broadens the barriers of sharing information. Next the literature observes the susceptibility of patients to fraudulent activities. This section of the review of literature examines theories of Crime Opportunity and how this theory can be applied to the incidence of fraudulent activities in the private health sector (Manocchia, Scott and Wang, 2012).

The rest of the study will entail a review of fraudulent activities by either the service provider or member and will highlight the types of fraudulent activities that are committed. Fraud is a waste, to the limited resources that are available in the healthcare industry. It is eating away at the very core of what the healthcare industry, is working towards, providing affordable healthcare to all citizens in the country (Chattopdhyay, 2013). The review of literature concludes by examining the possibilities of a Nationalized Health Sector. The nationalization of health sector aims to promote equality, accessibility to medicines, availability of services and medicines.

2.2 The nature of Private Health Funding

The South African health care system before 1994 resembled a failing healthcare system that was centred on servicing the white minority, while the majority of black people in the country were subjected to poor healthcare service delivery, because most of the resources benefited the private healthcare. The majority of the poor and unemployed black people, still fall under public health sector because of high unemployment rates and the unaffordability of medical schemes, whilst taking into consideration the current financial instability in the country (Pieterse, 2014).

Private health sector in SA, is experiencing rapidly increasing costs of inflation and unnecessary volume of services (Choonara et al, 2016), because the rise of lifestyle diseases and HIV/AIDS. As released by Statsa (2017), the official population of SA in 2016 was estimated to be at 56.5 million. The public health system serves a vast majority of the population, whilst 8.8 million (2016) people belong to a medical scheme. Of this 8.8 million members belonging to a scheme, 2 519 743 members belong to Discovery (discovery, 2017) and 1 835 733 million government employees belong to GEMS (gems, 2017).

In South Africa the private healthcare system is funded mainly by (Erasmus, Ranchod, Abraham, Carvones and Dreyer, 2016):

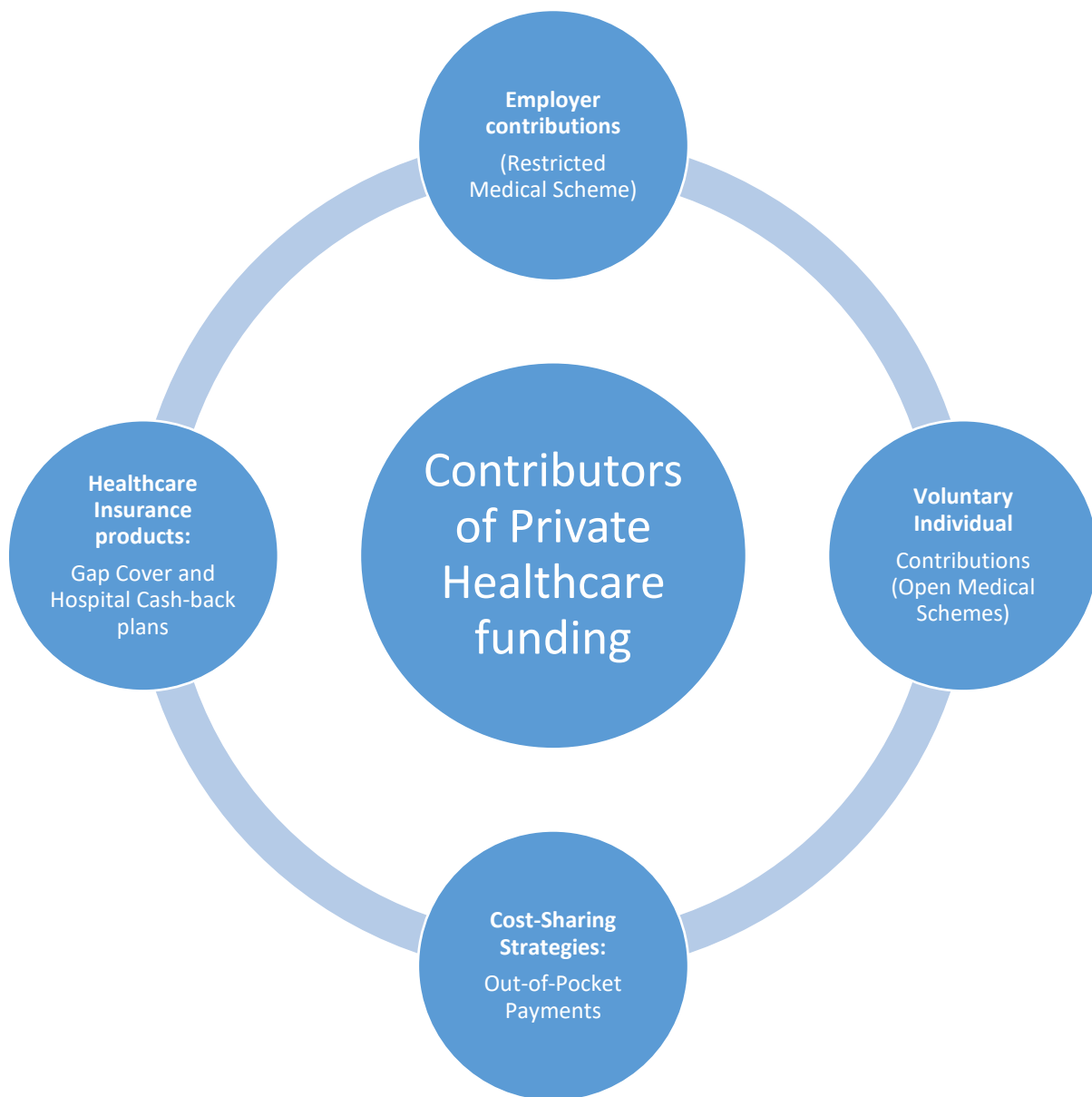


Figure 2.1 Contributors of Private Healthcare Funding (Adapted from: Erasmus, Ranchod, Abraham, Carvones and Dreyer, 2016)

Utilization cost comparison between Public and Private Hospitals

Public Hospital Costs



- Capital provided by the government from tax payers
- Doctors employed from community service because some are bursary holders
- Radiologists and Pathologists employed by the government
- No VAT or Tax charged to state hospitals
- Medicines are procured through cheap tender process

Private Hospital Costs



- Capitals provided by investors
- Doctors are not employed, cost per head, charge per hour.
- Radiologist and pathologist are outsourced
- Pay VAT and Tax
- Medicines are procured at SEP prices, not tendered, bought at supplier prices

Table 2.1 Cost utilization comparison between Public and Private Hospitals (Adapted from: Mediclinic, 2013)

This table presents a comparison between how costs are used within the two-tiered healthcare system. It is evident that this system is not equitable. The people that are in charge of the private sector are investors, who are mostly doctors that are highly specialized in their field of practice.

2.2.1 Types of Medical Scheme in South Africa

There are two types of schemes dominant in South Africa, there is the Restricted and Open Medical Schemes. Scheme growth is based on acquiring new members and retaining the current membership (Erasmus, Ranchod, Abraham, Carvones and Dreyer, 2016).

2.2.1.1 Restricted Medical Scheme

The Medical Schemes Act 131 of 1998 sets out the principles for which membership can be granted and the employer grants the medical scheme, as a condition of employment. Entitlement to medical scheme is presented as a condition of employment or service agreement by employer, either as a cost-to-company or remuneration benefit. This means a good majority of people employed by a company, belong to a medical scheme, as a condition of service agreement. Many employers make it compulsory that employees join a scheme provided by the employer, unless the employee is already a dependent of the spouse or other (Erasmus, Ranchod, Abraham, Carvones and Dreyer, 2016). No one individual can belong to two medical schemes at a time, it is illegal (medical schemes, 2004).

Restricted schemes cover 3.9 million lives, which is almost 50% of all people that belong to a medical scheme (medical schemes, 2004). This type of scheme contributes greatly towards the growth of private healthcare funding because the subsidization offered by employers is a huge boost. Restricted schemes allow for greater benefit design and structuring of the in-house medical scheme. This restriction allows for broader contribution scale across the high-middle- low income earners. The categories by which a medical scheme can be classified as being Restrictive include (Kaplan and Ranchod, 2015):

Employees of a particular industry	Employees of a particular profession	Employees of a particular professional association/union
<ul style="list-style-type: none">• Bankmed (Banks)• Netcare(Healthcare professionals)• AngloAmerican (Mining)• Military	<ul style="list-style-type: none">• CAMAF: Chartered Accounts• National Bargaining Council	<ul style="list-style-type: none">• SAMWUMED

Figure 2.2 Restricted Medical Scheme classification according to employment types (Adapted from: Kaplan and Ranchod, 2015)

A good example of a restricted scheme, that resulted in a major shift from public to private healthcare accessibility, for those low-income workers employed by the Government, is the Government Employee Medical Scheme (GEMS). GEMS was established in 2005 to meet the growing needs of those employees that could not afford private healthcare services, majority of which are black workers, by ensuring equity, in particular untenable, racial and geographic disparities efficiency and access of more extensive healthcare benefits (Pieterse, 2014). This has also offered government employees more control and management of their health and lifestyle. Because the government could not handle the over expenditure on the public health care system in the country, implementation of a government workers medical scheme, ensured that the government would have more control of the money spent in this sector. This resulted in a reduced number of government employees using public health services and increased dispensation of revenue into the private healthcare sector (gems, 2015).

It was in 2000, that Medical Scheme Act 131 of 1998 re-introduced the mandate that medical scheme contributions should be based only on the income of the main applicant. If the employee is subsidized by the employer, a method of community rating is used (medical schemes, 2004). Community rating is a method used to charge a contribution to all members that are on a specific benefit option, such that all members on a particular option must by law pay the same contribution, regardless of age or health status. The restricted scheme benefit options that are offered by the employers are income based and cross-subsided from higher to lower income earners (Kaplan and Ranchod, 2015).

The contributions were formulated to be more affordable than open plans, with a broader contribution and benefit table (Erasmus, Ranchod, Abraham, Carvones and Dreyer, 2016). Monthly contributions are paid by principal members on a monthly basis (prepaid or pay as you contribution). If this contribution is not received from the member responsible for the payment, the membership will be suspended and the member not will be able to have access to the scheme benefits.

2.2.1.2 Open Schemes

An Open scheme is a non-discriminatory scheme, which allows any citizen that qualifies for enrolment, access to private healthcare. Furthermore, any applicant will be granted acceptance regardless of their age, health status and past or present medical history (medical schemes, 2004). Discovery is the largest medical scheme company that offers both open and restricted plans (Discovery Health Matters, 2017). Open enrolment ensures that prospective members of medical schemes cannot be excluded or denied cover, whilst community rating (where contributions are allowed to vary only by family size, family structure, in terms of adult and child dependents, and income, and not by risk factors such as age and health status) ensures a degree of risk cross subsidization can occur (Ramjee and Vieyra, 2014).

2.2.2 Cost Sharing Strategies

2.2.2.1 Cost-Sharing Strategies

The employment of the cost-sharing mechanism, was implemented to avoid anti-selection (Kaplan and Ranchod, 2015). This is done by impacting on the price members pay out of pocket for healthcare services, either for all services or for a selective set of services. Increasing consumers' out-of-pocket expenditure per service should decrease their subsequent demand thereof, potentially resulting in the consumption of fewer services.

The cheapest, less inclusive medical schemes that use network plans don't have to apply cost-sharing methods because their members are not tempted to overspend their benefits. By contrast, the more comprehensive plans have to utilize cost-sharing methods, to prevent their members from over-indulging on their benefits. Cost-sharing as a risk minimization tool has greatly helped medical scheme companies to save on expenditure (Ramjee and Vieyra, 2014). Out-of-pocket payments comprise of co-payments and levies, which will be discussed in this chapter:

2.2.2.2 Out-Of-Pocket Payments (OOPs)

Out-Of-Pocket Payments (OOPs) refers to the method used by medical scheme companies to share or shift costs incurred by members during a service. This method is used as an attempt, for these companies to be less liable for costs (Kaplan and Ranchod, 2015). As part of scheme rules, this method is applied when the service provider has overbilled for a service, above the Maximum Amount Payable (MAP) by the scheme. This amount will then either be the co-payment, levy or balance to be billed, payable by the member. Out-of-pocket payments (OOP) are catastrophic and cause significant financial problems to those households that are poor and cannot afford to make such payments. Poor financial healthcare structures broaden the risk of further marginalizing the rich and poor, which negatively impacts on socio-equity and poverty (Kaplan and Ranchod, 2015).

2.2.2.3 Co-Payments and Levies

The aim of co-payments and levies was introduced to discourage frivolous spending by members. A levy is a fixed amount payable by the member at the point of service or before a service can be initiated. Usually, this will be that amount that is payable at the emergency ward, if the member has not used a designated service provider (McLeod, 2014). Levies can really become a financial burden to a member that cannot afford to pay upfront to obtain the required service. On the other hand, a co-payment is that amount payable by the member, when the charged fee-for-service is greater than what the medical scheme is willing to pay co-payments, usually applies to medicines bought at pharmacies and doctors consultations. The method of Co-payments and Levies was introduced to serve 3 purposes (McLeod, 2014):

1. To discourage members from seeking out of network healthcare services
2. To discourage members from making frivolous and grudge purchases
3. Cost-sharing mechanism between the medical scheme and the member.

2.2.3 Health Insurance Products

Health insurance products, do not have a benefit design, they offer no benefits and no medical savings account. This product can be used as an add-on to medical scheme benefit cover. The following products are considered:

2.2.3.1 Gap Cover

Gap cover provides additional protection, from those unexpected and unforeseen medical expenses or shortfalls, which may arise from the doctors' consultation or hospital bills (Discovery Health Matters, 2017).

2.2.3.2 Hospital Cash Back Cover

Hospital cash back cover, is described as that cover that pays for the patient while they are hospitalised. A cash lump sum will be paid out to the patient, after a number of days have been spent in hospital for a certain period. This insurance can be used for loss of income while the patient is in hospital (one plan, 2016). Each day spent by the member as an in-patient and not as a day patient will be covered. The cover pays cash for every day spent in hospital for example, from day 5 until the patient is discharged. Over the years people jumped at the opportunity of having this particular product, as an add-on to their medical schemes. However, these hospital cash-back plans suffered sharp increases in admissions for minor ailments being treated over several days. As a result, these insurers noted a loss, with fraud reported as the primary risk driver. New products had to be closed or restricted because of the risk of fraudulent syndicates between doctor and patient (One plan, 2016).

2.3 Information sharing in a multidisciplinary arena

The degree to which consumers(healthcare consumers) have acquired knowledge, their ability to unpack and confidently evaluate and implement such information about healthcare plans, remains a challenge in the growing scheme industry (Rowe and Moodley, 2013). Generally, challenges to accessibility of information that is relevant to patients, was created by past practices of the paternalistic model. This model undermined the prospects that patients had some knowledge about health-

related problems, since they are the ones who were experiencing the problem and could offer the healthcare provider more information about it (Coulter, 2011). Currently, healthcare systems have encouraged a shift from “The doctor knows best” model to a patient-centered approach. Fong and Longnecker (2010), further add that the current medical model has transformed itself, evolving from paternalistic to patient-centred model, where communication is the leading form of information exchange and shared-decision making is promoted. The primary purpose of encouraging doctor-patient communication and shared-decision making is to develop relationship founded on information exchange.

2.3.1 The Paternalistic Approach: Past practice still endorsed by power driven healthcare professionals

Formerly, the decision making process was strictly reserved for the healthcare professionals, since they had a qualification and acquired expert knowledge through education, therefore the healthcare professional knew best. Consequently, for this reason patients left it to the qualified professional, to gather patient-specific information from them, analyse the information and then reach finalising decisions without receiving informed consent from the patient (Kon, 2010). This situation is all too familiar in the public sector, where the patient is powerless to challenge the doctor, the autonomy of the patient is restricted, so the patient will give up all power for the doctor to make the final decisions on behalf of the patient. Nowadays, this approach is not realistic for the doctor to have the information and take full control of the interaction with the patient, without involving the patient. Patient dissatisfaction is brought about by poor or breakdown of communication levels in this relationship (Fong and Longnecker, 2010). Another model which imitated the paternalistic approach, was a Disease focused model. In this model, the conditions of this relationship were based on the fact that the doctor was the expert, who possessed all the information and a strategy for the treatment plan. All conclusive decisions were taken by the doctor on behalf of and in the best interest of the patient (Rowe and Moodley, 2013).

The doctor cannot have divided loyalty or conflicted interest for that matter; otherwise this relationship will be jeopardized. A term that was used to describe the

imbalance of information in this relationship is called, Asymmetries of Information. This term was created to describe how healthcare professionals and patients can hold an uneven distribution of information. The drawbacks introduced by Asymmetries of Information discourage openness, reliable free information and conversely encourages the manifestation of corruption, misuse, over claiming and overcharging by healthcare professionals (Rispel, De Jager and Fonn, 2015).

In a Consumerist model, the patient is referred to as a consumer of healthcare or healthcare consumer, vice versa. In this model, there is a shift from professional ethics to commercialized business ethics (both these have different ethical principles). The patient is treated like a commodity or a product and the doctor is referred to as the healthcare provider. The healthcare provider's main concern is to build a business empire and attracting as many healthcare consumers as possible (Rispel, De Jager and Fonn, 2015). Nortje and Hoffman (2016), describe the consumerist model as one that is practiced internationally in the growing private healthcare sector. Similarly, South Africa is increasingly adopting the consumerist model, which may pose detrimental challenges in the quality of healthcare, where healthcare professionals will be focused on making money, become less attentive to the needs of their patients and basically incompetent practitioners. The shift from healthcare professional to healthcare provider will mean that the care ethics of doctors are misaligned with those of the patient (Nortje and Hoffman, 2016).

In an Era where information technology has taken over, where information is freely assessed and available, the patient is the one who has the power to make definitive choices, regarding their health. It is crucial that concerned parties obtain patient informed consent, before any go-ahead is given (Wilson, 2017). A Doctor-Patient relationship mirrors that of a teacher-scholar relationship, which rides on trust, honesty, transparency and quality of care (Limberg, Sundin and Talja, 2012). The widespread use of social media connections, such as the internet, Facebook, Instagram, Twitter, has allowed access to an abundance of information, freely allowing the patient to gain clearer perspective of any medical issues. Patients will consult with a medical practitioner or a specialist with a list of questions pertaining to their disease state and recommended treatment plan, from the information derived from the internet. Nortje and Hoffman (2016) add that, there are a rising number of patients who have sound knowledge of patient rights and the responsibility of the

healthcare professional. The researchers affirm that this can be attributed to influence of mass media (print and electronic), which allows the patient to confidently present the doctor with educated questions.

However, it is all too good to say that patients are proactive when it comes to their health information, but what happens when this medical information isn't critically analyzed or peer-reviewed by a doctor or a disease management team? It can be said that, too much unfiltered information, coming from unworthy sources, with no medical accreditation may result in self-management and self-treatment possibilities (OECD, 2017). This will lead to delayed disease management and progression of the disease state, which may lead to death. Another, casual effect of uncertainty in the healthcare industry can be attributed to the many role players who possess different information and knowledge (OECD, 2017). The greatest barrier to sharing of information is that some stakeholders are resistant to the adoption of information technology. The roles players involved in the care of the patient such as (Fichman, Kohli and Krishnan, 2011):

1. Healthcare providers

- different professional disciplines, training and experience
- have specialized information and knowledge

2. Healthcare consumers(patients)

- personnel characteristics, disease states and treatment plans
- knowledge is limited towards the doctor and the type of service required

3. Medical service delivery and medical procedures.

4. Pharmaceutical companies

- Drug advances and drug knowledge

2.3.2 The Patient-Centered Approach: Putting the patient in the middle of healthcare delivery systems.

A patient-centred approach focuses on placing the healthcare needs of the patient at the forefront. This approach provides care by taking into consideration the patient values, characteristics and attitudes. It provides respect and an understanding of the patient responses (Inzucchi, Bergenstral and Buse, 2012). Also, this approach emphasizes on the need for patients to engage more and become involved in the decision-making process for their health. Patient involvement improves quality of life, leads to achieved treatment outcomes and strengthens doctor-patient relationship. The fundamental objective of the doctor-patient relationship is to establish a beneficial line of communication, which will be driven towards accomplishing improved patient health outcomes. Therefore, the ability of the doctor to initiate effective communication and interpersonal skills, will be determined by his competency in collecting patient-specific information, in order to provide an accurate diagnosis, appropriately explain, showing empathy, understanding the values and needs of the patient and counsel the patient about his findings, advice the patient about the preferred treatment plans and instructions and maintain the established relationship (Fong and Longnecker, 2010).

Coulter (2011) gives emphasis that, with the establishment of a doctor- patient partnership, it means that the doctor can still be trusted to be make expert recommendations regarding health outcomes. The issue of trust is based on the healthcare professional demonstrating competency, relevant technical skills through maintaining good communication. As part of continuous professional development, education, training and development of communication skills, is a must for healthcare professionals (Levison, Lesser and Epstein, 2010). The facilitation of good communications skills will result in controlled emotions (frustration and dissatisfaction) and the patient will be able to express better understanding, needs and expectations (Fong and Longnecker, 2010).

However, there are still barriers in the smooth transition of this approach (Grunloh, Myreleg, Cajender and Rexhepi, 2018). The medical community increasingly embraces shared decision making process. The relationship between the healthcare

professional and the patient is influenced by hierarchy. These days, the national health act has encouraged healthcare professionals to be willing to share required, relevant information with the patient (National Health Insurance, 2018). The notion of how far decision-making can stretch depends on the severity and complexity of the health problem. Situations will arise where the doctor will have to have retained the bulk of the decision to his discretion, but should obviously be guided by patients' values, cultural beliefs, needs and interests (Kon, 2010). Information sharing promotes advantages for the patient and the healthcare team respectively such as:

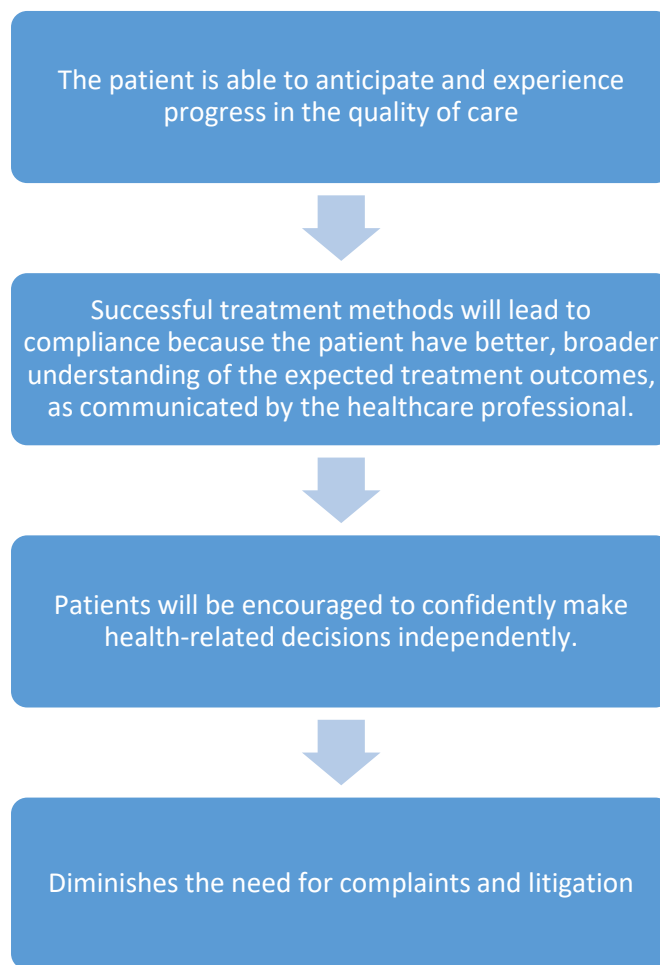


Figure 2.3 Advantages of Patient-Centered Approach (Adapted from: Kon, 2010)

The above figure 2.4, presents the improvements that the patient may experience with the application of the approach, into the healthcare system.

2.3.3 The impact of scheme policy wording: Challenges of language communicated and terminology

The medical fraternity uses words and terminologies that are difficult to fully grasp, they are challenging to breakdown and scrutinize where situations warrant. Of particular frustration, is the terminology used by medical scheme companies. Patients are always hammered down by the lack of comprehension of the idioms used in relation to a service, making them prone to making and taking uninformed decisions. Any interaction involving a patient and any other stakeholder in a healthcare organization, who has the authority of information, is expected to provide the patient with the requested information (Rowe and Moodley, 2014). It is most certainly the doctors, specialist, medical scheme companies, hospitals, pharmacies and regulatory bodies' responsibility to make sure that a patient has obtained all necessary information and that the patient truly understands the content and nature of such information.

Even though, the healthcare sector is characterized by complexity besides that of the vast diversion of disciplines, transparency of information could reduce the misconceptions and misunderstanding from members. If medical scheme companies provided clearer, explicit literature to their members, the information provided would be well received and understood (Fichman, Kohli and Krishnan, 2011). The field of medical scheme literacy does not focus and precisely measure the member's ability to understand and use the medical scheme (Choi, 2013).

The terminology provided and presented in their brochures is hard to understand, the scheme rules provided are complex, such that members do not know how to apply these rules in real life situations. The American National Association for Insurance Commissions conducted a study, to examine the attitudes and perceptions towards reading scheme policy disclosures (Vargheshe, 2013). The respondents offered various reasons for not reading the insurance disclosures and suggested they would be more likely to read disclosures if the more important information appeared first, the disclosures were short and used titles and headings and the disclosures looked important and readable (Cude, 2006). Members that are less educated, who have not been exposed to reading and come from disadvantaged backgrounds, will have difficulty with interpreting information provided by the scheme. The complexity of

allocation, the large number of benefit options and confusing terminology used by medical scheme companies hampers the member's decision-making process (Kaplan and Ranchod, 2015).

The NHI clearly states that all users of health services should be provided with full knowledge of (National Health Insurance, 2018):

1. The users health status
2. Nondisclosure of user's health status, without obtaining informed consent.
3. Range of possible procedures and treatments
4. The user has the right to refuse health service

Information or Knowledge sharing (the exchange of), which are synonymous to each other to explain to which extent the term Information can be used. This is of particular interest because knowledge is shared and when it is shared, it is considered powerful to those who possess it. The relationship that exists between information exchanges, would involve a two or multiple contributors, in this instance, it would be the multiple players of the healthcare sector and patients. Knowledge sharing also involves, sharing of documents, messages, gaining access to databases, interpersonal information between individuals and the transfer of information from messages. In the medical scheme industry this would apply to material that members have access to, such as medical scheme brochures, information that they read from the scheme website, information conveyed by the consultant either at walk-in centers or over the phone (Wilson, 2010).

2.3.4 Unethical Misbehaviours of Healthcare Professionals

The term Ethical Transgressions, was presented by Bruggerman, Wijma, and Swahnberg (2012), which refers to contravention of the principles of professional ethics. Professional Ethics considers the motives and intentions of the contravention, whether it was executed in the best interest of the patient or for the healthcare professionals own interests, therefore critical analysis of the contravention will determine whether it was intentional wrongful behavior. It should be appreciated that in some situations, the ethical principle may override the strength of another.

There are four principles of ethics that be considered to Healthcare professionals (Kuhse and Singer, 2009):

- ✓ **Autonomy:** respecting an individual’s decision-making ability and independence.
- ✓ **Non-Maleficence:** the intentions and motives of the healthcare professional, should do no harm to the patient, therefore the interests of one individual should not lead to another’s harm.
- ✓ **Beneficence:** the intensions, motives and interests of the healthcare professional, should promote good welfare of the patient.
- ✓ **Justice:** all patients must be treated fairly, without prejudice.

Ethical misbehaviors of healthcare professionals can be classified as follows (Nortje and Hoffman, 2016):

Competence	Business practices	Professional practice
<ul style="list-style-type: none"> • Incorrect Diagnosis • Disregard for patient needs, values and beliefs • Bad communication skills • disclosing confidential patient-specific information 	<ul style="list-style-type: none"> • Fraudulent billing • overcharging • Over servicing • Not referring a patient, practicing out of scope 	<ul style="list-style-type: none"> • Not registered with Medical council • employing unqualified healthcare professional • Practising out of scope of expertise • Initiating intimate with patients

Figure 2.4 Unethical Misbehaviours of healthcare professionals (Adapted from: Nortje and Hoffman, 2016)

In a study conducted by Nortje and Hoffman (2016), the researcher classified fraudulent behaviors as ethical misbehaviors or ethical transgressions. The bulk of the claims in this study were fraudulently charged, meaning that the services were benefits were claimed, were never rendered and there was a misrepresentation of diagnostic ICD10 codes, that were claimed. The doctor would claim for a disease

management that contained PMBs and had the possibility of opening more benefits for that condition. The consequences of fraudulent behaviours, is increased risk of out-of-pocket payments because of the funds have been depleted. Also, the doctor is more concerned with making profits than providing healthcare services to their patients.

2.4 Fraudulent activities in the private healthcare sector

Fraud as described by the OECD (2017), is the deliberate and illegitimate diversion of resources for the individuals own interest. It is a monster that has the capability of destroying state owned resources, which were intended to build and grow a nation. Those implicated and involved in fraud and corruption syndicates, are malicious, merciless individuals, who are able to steal from their own people. Fraud and corruption is a menace, that eats away at the core of the moral vision of medicine by undermines the level of trust entrenched between the doctor and the patient (Chattopdhyay, 2013).

Fraud in the healthcare sector, specifically the private health sector, is a white collar crime that is cultivated by healthcare practitioners (Ogunbanjo and Van Bogaer, 2014). This type of fraud is taken for advantage by those healthcare professionals whose services are claimed and reimbursed by medical schemes. It's a matter of opportunity, financial strain and vulnerability of innocent unknowing members. The medical schemes 131 of 1998 describes fraudulent conduct as the following (Nortje and Hoffman, 2016).

- ✓ A false claim, due for the payment of any benefit according to the rules of the scheme.
- ✓ Misrepresentation of materials facts for the payment of any benefit as determined by the scheme rules.
- ✓ To issue the medical scheme, for payment of a claim from the medical scheme benefits, an exaggerated statement or invoice.
- ✓ To fabricate a service that partially provided or not provided at all to be charged.

Also, psychological factors of rationalization could be a contributor to the fraudulent behavior of these practitioners (Ogunbanjo and Van Bogaer, 2014). The perception of the healthcare professionals that their behaviors are not morally unethical. Those individuals involved in white-collar crime don't view themselves as corrupt. Rationalization tactics involves Denial of Responsibility. Denial of Responsibility is simply, the avoidance of the offender, to view his behavior, as one that is corrupt, a deliberate denial that allows the offender to make his actions appear to be normal and acceptable business practices (Anand, 2004).

2.4.1 What makes members or patients of medical schemes attractive targets for fraudulent activities?

Attributes of trust, honesty, transparency and integrity are the foundation of the doctor-patient relationship. However, the distortion of information held between the doctor and patient, allows the professional to take advantage of this situation, deceitfully performing services that are not in the best interest of the patient (Manocchia, Scott and Wang, 2012). In this literature review two theories will be discussed in relation to the problem of distorted information sharing.

Routine activity theory is a branch of the crime opportunity theory, developed by Marcus Felson and Lawrence Cohen. This theory describes offenders as motivated individuals, who are capable and willing to commit a crime activity. The motivated offender has identified a particularly attractive, vulnerable (Uninformed, uneducated patient) and suitable target. Factors that make the suitable target appealing to the offender will depend on the environment and situation at a specific time. The focal point of the theory is placed at specific crime events and the decisions of the offender. The theory offers an assumption that any individual whether criminal or not can commit a crime if an opportunity is presented. On the other hand, a suitable target is the victim in this situation and the theory suggests that some victims have a choice, on whether to be victim, by not placing themselves in circumstances where crime can be committed against them (Morgan, 2012).

Diagram showing Routine Activity Theory

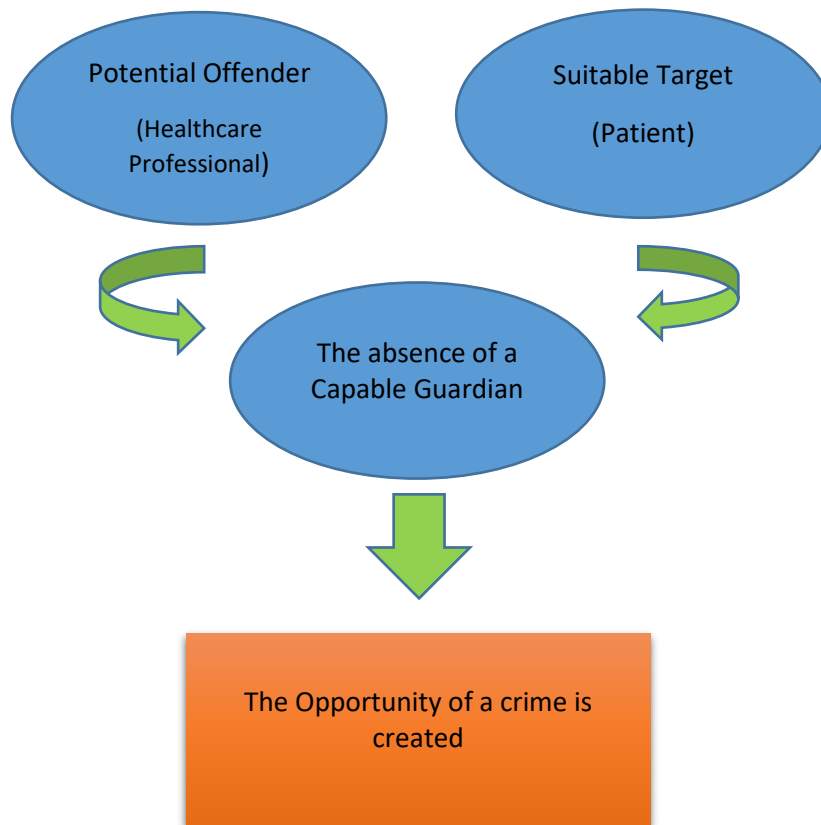


Figure 2.5 Routine Activity Theory (Adapted from: Manocchia, Scott and Wang, 2012)

The patient-centered approach may be implemented to tackling patients being susceptible to fraudulent activities. This can be achieved by allowing the patient to gain awareness of how to identify a fraudulent activity or when they are pursued to be involved in such. The patients must be equipped with information that will help them in becoming more vigilant (Manocchia, Scott and Wang, 2012).

The theory provides a frame of reference for solid analysis of customized crimes. Analysis of individualized crimes helps with the creation of standard operating procedures that can be applied to actual situations, therefore altering the occurrence of the crime and preventing the opportunity of the crime, is an element that can be affected by the type of environment, situation, space and time, therefore will determine the outcome of the opportunity. Additionally, the theory is of the view that the offender has little or no control over the type of environment and condition of the environment. As prescribed by the theory, 3 conditions are necessary for a crime to

take place namely: Likely offender, suitable target, absence of a capable guardian (Manocchia, Scott and Wang, 2012)

2.4.2 Detection of fraudulent activities

Healthcare providers are resistant to change, the providers are focused on what they are doing for the patient but reluctant to accept the introduction of information technology in their practices. Healthcare professionals are rather reluctant to the implementation of fraud detection and fraud reduction efforts, mainly because they were trying to avoid being exposed for their fraudulent participation (Fuchs, 2009). Study focuses on antifraud models and fraud control education, have not received much attention from researchers because fraud control does not fall within a single discipline e.g., supply chain, financial department, pharmaceutical, medicine, public policy (Sparrow, 2000). Another study that puts together the notion of Sparrow (2000) was examined by Thorton, Mueller, Schousten and Van Hillegersberg (2013). This study examined analysis of different models that would be used to detect provide, looking at the multidimensional nature of medical scheme.

Observations regarding lack of education awareness and compromised communication, therefore suggest healthcare fraud and abuse are caused by multiple contributing factors. The concept of how fraud can be detected, by classifying it into fraud types (in this study fraud types means fraudulent activities). Medical scheme fraud can be detected by using internal control measures and data mining of all claims in their magnitude (Thorton, Mueller, Schousten and Van Hillegersberg, 2013). The factors influencing fraud play a very important role in determining prevention strategies. Another method that can be used besides education and training is Data Mining. It is helpful because it allows medical schemes to extract useful information from numerous claims (Joudaki et al, 2015).

This allows the administrators to single-out smaller claims for scrutiny, if fraud is suspected. Traditionally, paper claims were used to audit claims. The service provider would submit a claim either by fax, scan to email or send a hard copy of the claim copy script via post to the medical scheme, unfortunately this was extremely time consuming and an unreliable method (Joudaki et al, 2015). Paper claims were

not careful to monitor the characteristics and tendency of claims, as a consequence making it difficult to track a fraudulent activity. At present times, the processing of paper claims is now driven by technology advances, where online real-time claims are submitted to the medical scheme (Medikredit, 2017).

The following are benefits of electronic online claims but limited to those described:

Saves time and money when compared to paper claims
Elimination of potential errors through manual processing
Allows the ability of patients to make informed decisions regarding the use of benefits. However, claim administrators are able to implement complex benefit design or scheme rules design
The health worker will be able to determine at the point of service whether a claim will be paid or not.
Patients are able to determine whether they will be liable for a co-payment at the point of service,
With online processing, duplication of tests and procedures, service and medicine dispensation can be avoided

Table 2.2 Benefits of online claims versus paper claims (Adapted from: Medikredit, 2017).

The figure 2.4.2.1 provides a depiction of the benefits of healthcare professionals using new technological advances, to submit their claims. Many doctors are still making use of manual administration of documents and posting these to the medical scheme for payments. Furthermore, it cannot be disregarded the cost implications that obviously transitioning from old-fashioned paper claims to electronic online claims. Perhaps, there are motives for the healthcare professionals, buying into electronic online claiming

2.5 Implementation of a Universal Healthcare coverage system (National Health Insurance)

The South African healthcare system is structured as a 2-tiered system, which can be broken down into:

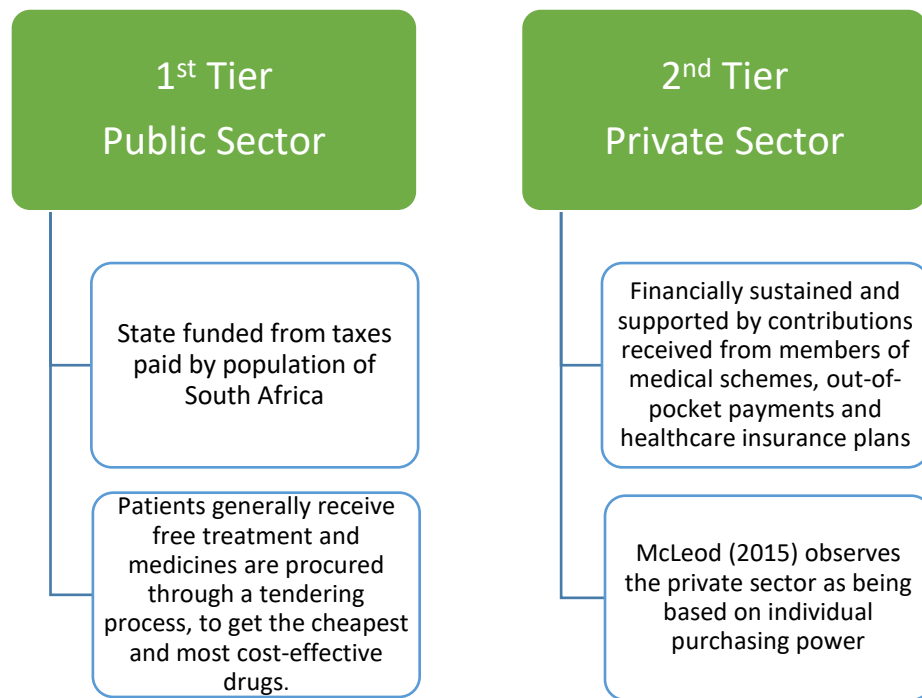


Figure 2.6 Illustration of South African 2-tiered healthcare system (Adapted from: Ramjee and Vieyra, 2014)

The 2nd tier of the South African healthcare system is characterized by high inequality, social disparities, uncontrollable and unregulated healthcare costs. Before the intervention of democracy in South Africa, the good and reliable health services were enjoyed and utilized by the white minority, while the majority of the black people were subjected to state hospitals, that were poorly serviced, operated under debilitated conditions, under resourced, lack of adequate number of professional health workers per head and were over crowded. But, with the rise of the new government, a vision for a national healthcare system was to be realized (Ramjee and Vieyra, 2014).

In 1997, the Department Of Health under the leadership of the ruling government published a “White Paper for Transformation of health system of South Africa.” The vision was to create an integrated national health service, uniting both public and private sector, where citizens of South Africa could enjoy the benefits of both services at a free rate. Nationalization of the health system would promote equity, accessibility of resources, availability of services and medicines and suitable service delivery. This would mean that the new health system would (National Health Insurance, 2018):

1. Increase utilization of service delivery
2. Ensure access and availability of comprehensive healthcare
3. Improved accessibility to medicines
4. Public healthcare would be strengthened
5. Partnership between public and private sector, to ensure delivery of essential health services.
6. Reduction of healthcare costs

As released by Statsa for the year 2016, South Africa has a population of 56.5 million residents. Africans (black) account for majority of the population at 45.11 million people. Whereas the population of white individuals is estimated at 4.52 million. With the rate of unemployment rising sharply over the years, at 27.7% in 2017, this means that the public health sector which services mostly the unemployed, poor communities, is overcrowded and struggling to cope with the increasing numbers of life threatening and lifestyle diseases such as HIV/AIDS and Diabetes. The public health sector faces countless cases of negligence by the healthcare workers, who are over worked and not motivated to fulfill their duties because they feel they are poorly compensated. This sector is crippled by corruption in the supply chain department, mismanagement and misuse of state funds intended to buy resources (Ramjee and Vieyra, 2014).

The private health sector is sustained by contributions, out-of-pocket payment and healthcare insurance. Therefore, the introduction of the NHI will cause a shift favoring the less privileged because the accessibility and availability of both public

and private health services. The aim of the NHI is to provide uniform health system in South Africa, which should recognize the socioeconomic injustices, imbalances and inequalities, to improve quality of life. The aim is to promote a spirit of co-operation and shared responsibility among public and private health providers or professionals, which would also involve sharing of information and knowledge. Capitation is the method of payment that will be adopted in the new NHI in South Africa. Currently, public sector doctors are paid a set salary per month, regardless of number of patients seen or services provided (Rowe and Moodley, 2014). Doctors need to guard against being motivated by money and becoming purely business-minded, at the expense of their patients.

2.6 Chapter Summary

The role of information is that it should be given, shared, accessed by individuals who require it. This allows the individuals to appreciate, understand and make decisions based on the information provided to them. The aim of the study focused on the role of information in a multidisciplinary healthcare sector, such that there are several role players, with diverse levels of expertise. However, these role players are not open to sharing relevant patient-specific information with the patient, so that the patient is able to make informed decisions. The study looked at the medical scheme industry, paying particular focus on the nature of private funding, which is financially sustained by member contributions, cost-sharing strategies and healthcare products. The study also considered the different approaches that apply to the role of information and sharing of knowledge. The approaches discussed included paternalistic and patient-centred approach. The opportunity of fraudulent activities can only manifest where the environment allows for such behaviour. Lack of confidence by members, due insufficient possession of information to make informed decisions, allows the member to become a suitable target for fraudulent activities, either involuntary or voluntary. Moreover, the National Health Insurance causes a shift towards a universal coverage system, where all citizens of South Africa, can enjoy the benefits of both public and private hospitals.

Chapter Three

Research Methods

3.1 Introduction

As described by Sekaran and Bougie (2013), research can be defined as the process of finding a resolution to a problem that has been identified, after the problem has been thoroughly studied and analyzed. The chapter aims to introduce and explain the rationale for the research methods chosen in the study. Research methodology is described as the theoretical analysis of methods used in a field of study. The methodology of research provides a theoretical underpinning for understanding which methods can be applied to the problem statement (Wikipedia, 2016). This chapter presents the aim of the research, the research approach and design, the strategies used for data collection, the population, sample size and sample criteria that was used. The chapter also includes the types of data analysis and the ethical considerations.

3.2 Aim of the Study

The aim of this research study is to bridge the gap that has been identified through comparative analysis and prior research findings, which were based on the asymmetries of information that exists in the multidisciplinary health sector and the patients. The information held by the stakeholder in the health sector is skewed, creating a barrier in the quality of information that can be exchanged. The formation of these barriers within the health sector, create an opportunity for fraud and corruption to manifest. Past research focused on antifraud and corruption methods, such as how to detect fraud and neglected the role of information to the patient. This study will thus contribute to the existing research papers that were patient centered.

3.3 Research Objectives and Research Questions

Objective 1: To investigate whether members hold knowledge about their medical schemes in order to take informed decisions?

Research Questions:

1. What level of knowledge do participants hold about the medical scheme?
2. Is the level of they hold enough to help the members take informed decisions
3. Do members have an understanding of the most common terminology used by medical scheme?
4. Do members of medical scheme have an understanding of scheme rules?
5. Do members of medical schemes have an understanding of scheme penalties and legal requirements as a member?

Objective 2: To investigate whether members have knowledge about opportunities of fraudulent activities within the medical scheme industry?

Research Questions:

1. Do members of medical have an understanding of the term fraud?
2. Is the difference in the term fraud and misconduct?
3. Will a member be able to identify a suspected fraudulent activity?
4. Can a member confidently follow the process to stop a fraudulent activity?

Objective 3: To determine if a relationship exists between members having knowledge about medical scheme and the opportunities fraudulent activities.

Research Questions:

1. Does a relation exist between the level of knowledge members hold about medical schemes and the level of knowledge about opportunities of fraud?

3.4 Research Paradigm

A research paradigm is a broad framework of understanding, a filter of one's perception and beliefs about scientific theories and certain practices (Amatya, 2011). It is a way of thinking about the world through different lenses.

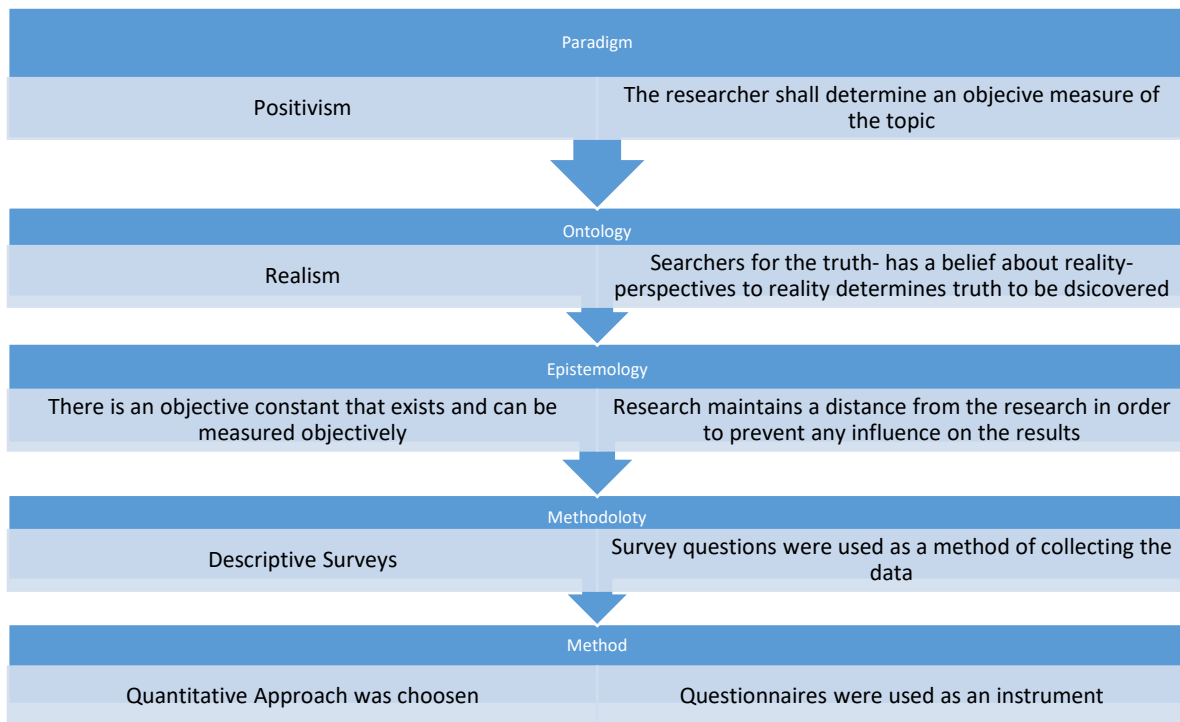


Figure 3.1 Research Paradigm for Quantitative study approach (Adapted from: Amatya, 2011)

This research shall follow a quantitative research paradigm, which is also known as the positivist paradigm, where the researcher wants to determine an objective as a measure of the topic. The researcher approaches knowledge discovery from an etic perspective. Ontology is the starting point of all research; it is the social reality upon which a theory is based. Realism is the ontology within this quantitative paradigm, which searchers for the truth, has a belief about reality or perspectives of reality, so therefore determines the truth to be discovered. The Epistemology is concerned with the theory of knowledge methodology, regarding methods, validation, and the possible ways of gaining knowledge. The methodology used in this study was descriptive survey. The researcher will use the components of positivist paradigm to determine perceptions, attitudes, level of knowledge of the participants in accordance with the research question. Finally, the research methods employed was quantitative method of which questionnaires were used to collect the data (Amatya, 2011)

3.5 Research Design

The outline of the research encompasses the data collection, the measurement of the data and the analysis of data (Sekaran and Bougie, 2013). The purpose of the study is descriptive, with the intention to collect data from people, in order to analyze the attitudes of the people. The strategy that will be applied is survey research, where the survey will be distributed using both online and handed to participants. The survey is constructed to examine the level of general knowledge that participants hold about medical scheme and fraudulent activities in the medical scheme industry.

3.6 Research Methods

The term research methods, refers to issues of choosing an appropriate research design to answer the research question and then designing instruments to generate data (Amatya, 2011). Survey method of collecting primary data was used by providing respondents with questionnaires. The method of collecting data using a descriptive survey method was to mainly capture the opinions, awareness, knowledge, perceptions and motivations of the respondents.

3.7 Research Setting

The study recruited participants from both Wits Research Health Institute (RHI) and Medirite Pharmacies in the Johannesburg region. Wits RHI is wholly owned by Witwatersrand University and is a multidisciplinary leader in research in the African continent (wrhi.ac.za). This institute specializes in clinical research and clinical trials. Due to the large number of research sites across Africa, Johannesburg was chosen by the researcher as more accessible and availability of participants. The research site that was most convenient to the researcher was Ward 21 research Centre, which was located in Hillbrow (Johannesburg). Secondly, Medirite Pharmacies are in-store pharmacies, situated inside Shoprite and Checkers Stores. This pharmacy group has over 160 pharmacies throughout South Africa, Swaziland and Angola

(shopriteholdings.co.za). For purposes of this study, only Johannesburg region was only considered.

3.8 Population, Sample Size, Sampling Strategy

3.8.1 Population

The term research population refers to a large collection of people, whose thoughts, ideas and behaviours shall be investigated, in order to collect responses for the study (explore.com). Sekarand and Bougie (2013), describe a population as a collection of events or people which are of interest to the research, for research purposes. Due to the large number of employees (over 800, wrhi.ac.za) at Wits RHI and Medirite Pharmacies (over 160 pharmacies, shopriteholdings.co.za), it was challenging to recruit all the employees, across both companies. Furthermore, both companies have a footprint in countries outside South Africa. The study would prove to be a costly and time-consuming exercise. For this reason, only individuals in the Johannesburg region would be eligible to participate in the study.

3.8.2 Sample Size and Sampling strategy

A sample is a collection of observations taken from the population of interest. The method, in which the sample will be chosen, depends on the environment, time and money. According to Sekaran and Bougie (2013), a sample is a subset of a population, such that members of a sample belong to the population. Due to the large number of employees at both Wits RHI and Medirite Pharmacies, the researcher chose to sample only 100 participants, for which was deemed sufficient for the purposes of the study. The choice of 100 participants was due to cost implications, some employees being located outside South Africa and time-consuming. The term research strategy refers to a plan that the researcher puts into place of how to achieve the research goal. In this study, the researcher did not implement a strategy, to determine the sample size.

3.9 Recruitment of Participants

The participants were recruited at both Wits RHI and Medirite Pharmacies, using a self-developed questionnaire. For those participants who individually collected their questionnaires from the researcher, the researcher first gave a brief explanation of what the study entailed. It was explained to the participant that their involvement in the study was totally voluntary and that there was no pressure to participate. It was explained that the questionnaire was a compilation of easy to understand questions. An email explaining the purpose and aim of the study was sent to Medirite Pharmacies in the Johannesburg region. The electronic questionnaire was attached to the email, if the individual was interested in participating in the study. The participants that were recruited represented the multidisciplinary dimensions of the healthcare sector. The recruited participants included: doctors, nurses, pharmacists, pharmacists assistants, department operational managers, social workers, research counselors and data captures. The feedback received from the electronic survey was very low and time consuming. The idea of sending out electronic questionnaires had to be abandoned. The participants were recruited in the Johannesburg region only because of the ease of accessibility to the participants, when collecting the questionnaires and availability of the participants. Only participants who had signed the consent form would be eligible for the study. Only participants who belonged to a medical scheme would be included in the study. Any participant, who had signed the informed consent form and did not belong to a particular medical scheme, was excluded from the survey.

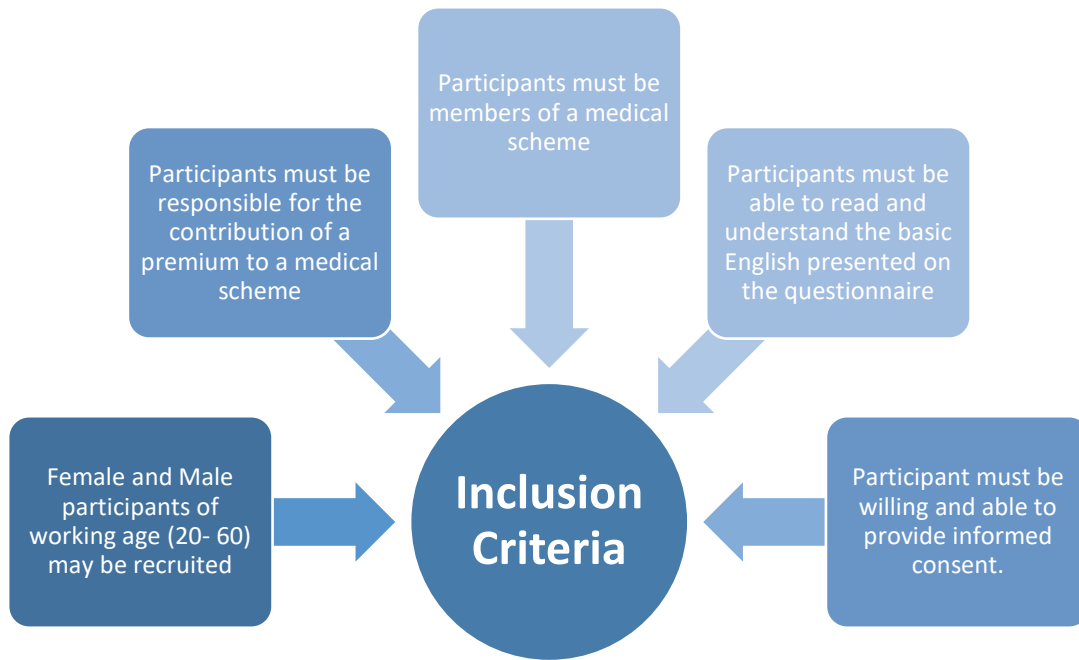


Figure 3.2 Participants Selection Inclusion Criteria

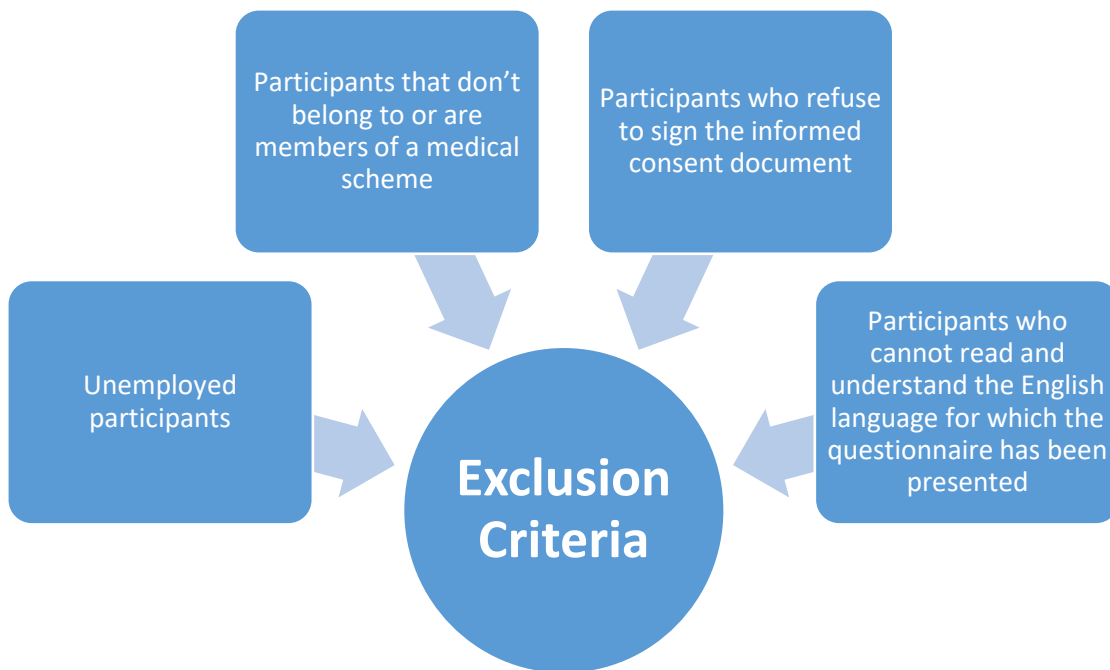


Figure 3.3 Participant Selection Exclusion criteria

The research instrument is a pivotal tool in the study, as it will be used to collect the responses from the participants, from which analysis and conclusions will be drawn.

The following diagram represents the process required for Questionnaire Design and Administration.

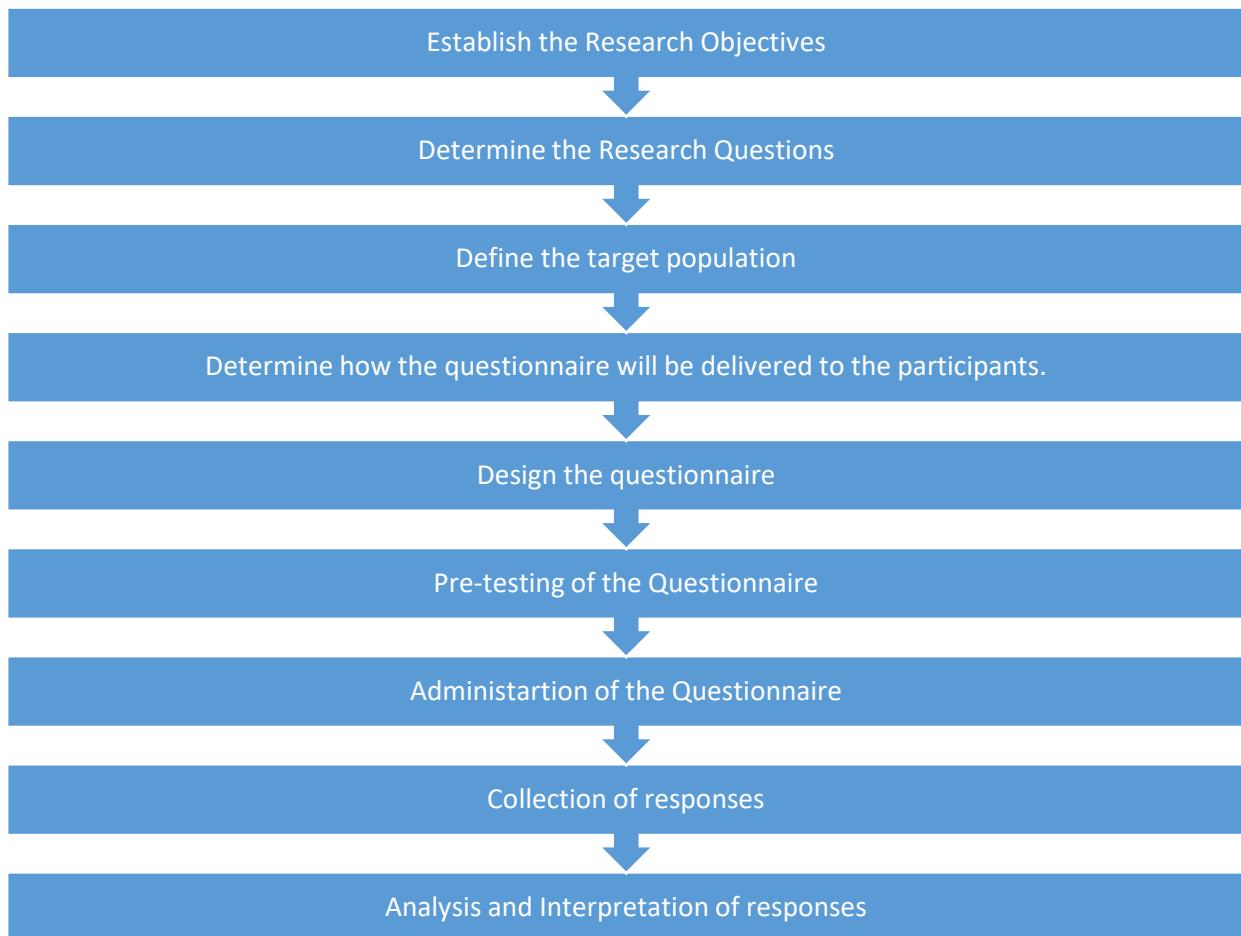


Figure 3.4 The steps for the design and Administration of a Questionnaire (Adapted from: Abawi, 2014)

3.9.1 Administration of Questionnaire

The questionnaire was emailed for a broader, easier distribution to the participants and also the participants collected the hard copy of the questionnaire themselves from the researcher. Initially, electronic questionnaires were distributed using emails to a large group of respondents. This allowed the participants to respond to the survey at their convenience. But, the response rate was too poor. As a remedy, follow-up emails were sent to the participated, but still people did not respond. So, personally administered survey, received must quicker responses. The researcher allocated a numerical code to every survey questionnaire, from 1 to 100, for easier traceability of the questionnaires. The researcher was the only individual who

handed out the questionnaires to any participant. The topic was briefly introduced to the participants, so that they had an understating of what to expect. The participants were given 3 days with which to response to and return all questionnaires to the researcher.

The table below indicates the advantages and disadvantages of using Email and Personally administered Questionnaires.

Emailed Questionnaires	Personally administered questionnaires
1. Advantages	Advantages
Reaches a wider, broader geographical landscape.	Researcher is able to get to a larger group of participants at the same time.
Respondents have the liberty to complete the questionnaire at their own time and pace (home or work).	Response rate is higher because the participants can responses immediately or within the stipulated time.
	Questionnaires can be tracked using a coding system.
2. Disadvantages	Disadvantages
Low response rate, which can be attributed to the time that participants take to response to the questionnaire	Participants can remain anonymous Any doubts or issues arising due to the study can be answered and cleared immediately.
Any form of doubts, issue and generally not understanding the study cannot be clarified and resolved immediately.	
Participants may not be computer literate, therefore may not be able to navigate through the questionnaire.	Questionnaire can get misplaced
3. Remedial Action	Require time and effort
The researcher must send follow-up emails, reminding the participants of the study and the due date for receipt	

of the survey.
Remedial Action
Researcher must keep track

Table 3.1 Advantages and Disadvantages of Electronic and Personally Administered questionnaire

3.9.2 Construction of the Instrument

The survey consisted of 23 multiple-choice questions that were constructed to examine general knowledge held by the participants. The questionnaire included an introductory paragraph explaining the purpose of the research. The questionnaire also included an informed consent form, which the participants had to sign, or write their names down, to indicate that the informed consent form had been read, understood and agreed with the requirements. The level of measurement that was used to structure these question is based on category scale, which would be used to provoke a single answer from a several answer presented (Sekaran et al, 2014). A scale as describe by Sekaran and Bougie (2013), is a tool that helps to distinguish the differences among individuals on variables that are specific to the study.

The compilation of the questionnaire consists of 4 sections that can be broken into:

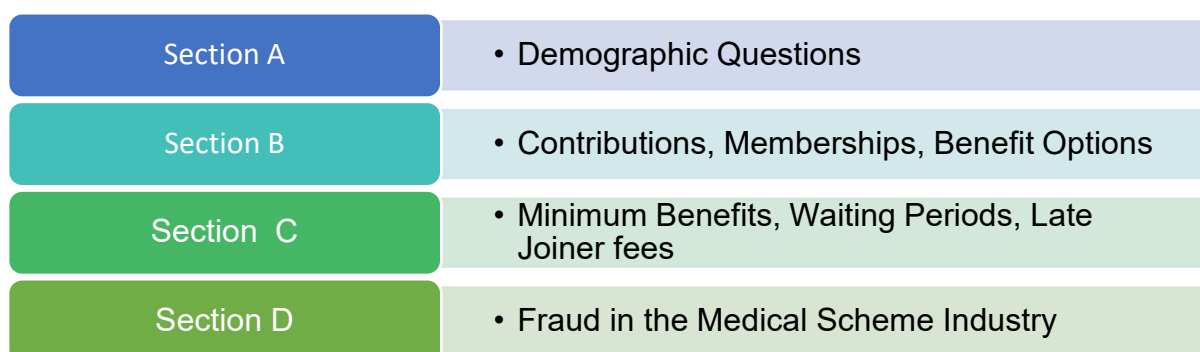


Figure 3.5 The 4 sections that test General knowledge on the questionnaire

Research questionnaire link to Research Objectives

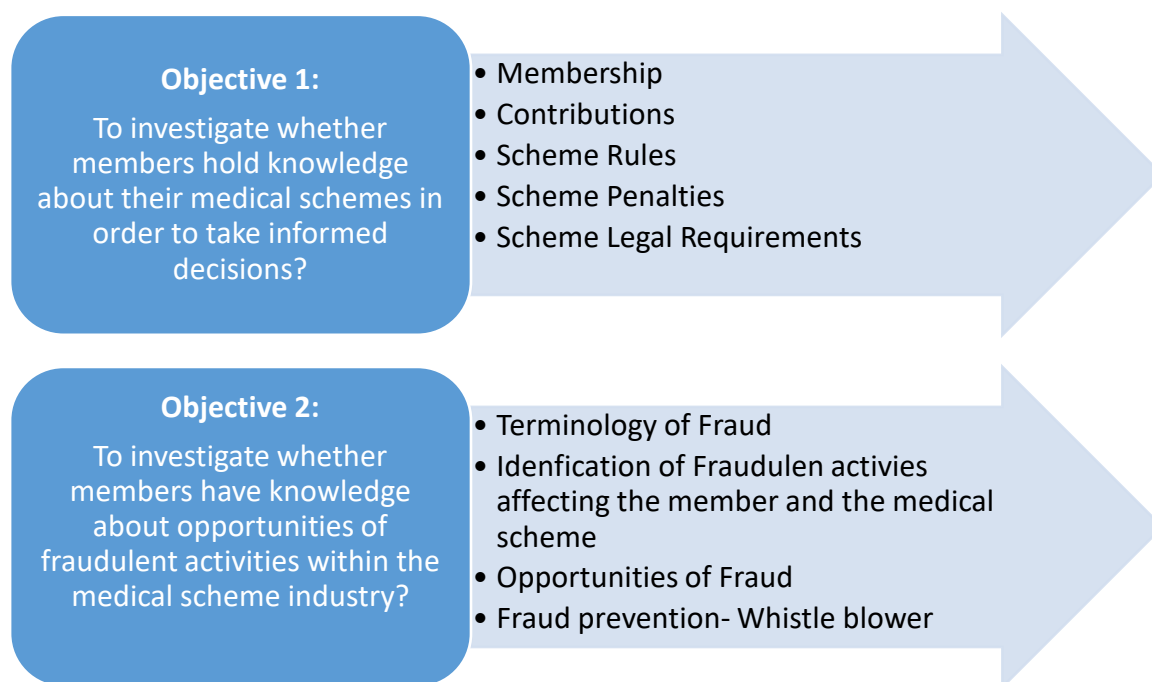


Figure 3.6 Research questionnaire link to Research Objectives

The construction of the questionnaire using key terminologies that are used on a daily basis by medical scheme consultants was aimed at familiarizing the participant with these important terms. The incorporation of questions about scheme rules, penalties and the legal aspect of the scheme, was aimed at familiarizing the participant with scenarios that may lead to scheme rules, penalties and legal implication, being applied.

The data was prepared for analysis by assigning numerical coding for the responses.

Response coding technique

Response Type	Coding of Response
Correct Answer	1
Incorrect Answer	0

Table 3.2 Numerical coding of the questionnaire responses

3.10 Data Collection

3.10.1 Data Collection Instrument

The data collection instrument used in this study was compiled with the intention to collect responses from the participants. The instrument used was a Self-developed questionnaire. Questionnaires are predetermined set of written questions, to which responses record the answers (Sekaran and Bougie, 2013). The questionnaire consisted of:

- A front cover, which gave a presentation of the name of the details and as well the field of work of the researcher
- Informed Consent form
- A list of 23 multiple choice questions, divided into 4 sections
 - Section A- 5 Questions
 - Section B: 6 questions
 - Section C: 6 questions
 - Section D: 6 questions

Participants of the survey were reassured that anonymity and confidentiality would be maintained. Participants had to respond according to their understanding. The participants encourage responding or attempting every question on the survey because their answers will contribute to the study output.

3.10.2 Data Collection Procedure

According to Sekaran and Bougie (2013), a survey is defined as a system of collecting information from people to analyze, compare and explain their knowledge, attitudes and behaviors. The method of data collection that was used was gathered directly through questioning of respondents using survey questionnaires. The data was administered using electronically via emails and personally administered questionnaires. The aim of this type of data collection was to attain faster responses from the participants, to reach a broader geographical area across Johannesburg. It was explained to the participants that the duration of completing the survey

questions would take 5min, no longer than that. All survey questions were returned to the researcher.

3.11 Analysis of Data

Each participant was assigned a numerical Identification number from 1 to 100. All answers or responses were coded as either correct (1) or incorrect (0). SPSS data analysis system was used to analyze the data. The analyzed responses were presented as means and percentages. The data was interpreted using diagrams such as charts and pie graphs. Furthermore, the relationship between variables was determined using correlation co-efficient and a regression model was applied.

The response rate of the survey questionnaires was calculated to 91%, which was attributed to personal administration of questionnaires. The participants responded at a much faster rate than the emailed questionnaires.

The response rate was calculated using the equation:

$$\begin{array}{c} \text{Number of completed responses} \\ \div \\ \text{Number of participants who received the} \\ \text{survey} \\ \times 100\% \\ = 91 \text{ completed responses} \\ \div \\ 100 \text{ administered questionnaires} \\ \times 100\% \\ = 91\% \text{ response rate} \end{array}$$

The research design that will follow is a quantitative method, which will examine the relationship between variables. When using quantitative methods, the data will be collected in form of numbers and percentages, and statistics will be used to determine the meaning of the numbers. Therefore, the results collected from the data will be used to determine the level of knowledge about medical schemes and

fraudulent activities held by members of the medical scheme industry. Quantitative research is said to be deductive because data is based on existing research.

3.12 Validity and Reliability

It is important to measure and determine the concept that is currently being studied or investigated, is actually measuring what it is intended to measure, so that the researcher focuses on the important elements of the study and not get side-tracked by irrelevant dimensions of the study (Sekaran and Bougie, 2013). Validity is concerned with truthfulness and whether it is believable and purposefully evaluates the measures of the study. Validity is very important in a research study as it measures the quality and acceptability of the study (Zohrabi, 2013).

3.12.1 Validity

Validity is a test that measures whether a particular concept of the intended study, actually measures the concept that it was intended to measure. The test of validity measures whether the correct concept has been measured (Sekaran and Bougie, 2013). This can be achieved by formulating a set of questions that focus only on the concept; the responses to the questions should contribute towards building and strengthening the concept.

An important form of measure validity in the study was content validity. Content validity ensures that measures include adequate and representative set of items that tap into the concept ((Sekaran and Bougie, 2013).). The build-up of the set of questions used a questionnaire, where linked to research objectives and were compiled to measure the general knowledge that participants understood about their medical schemes and fraudulent activities affecting the medical scheme industry. The wording, terminology and structure of the questions were constantly checked to avoid any bias to the participants. The responses to the questionnaire were collected from professionals from a multidisciplinary workforce. This allowed for a more diverse collection of responses and not from one discipline.

3.12.2 Reliability

Reliability is a test that measures consistency and stability of the concept being investigated. It is a test that establishes the extent to which a researcher can distribute the instrument without bias. The consistency of measured results allows for more reliable data, therefore the reliability points towards the stability and consistency of the instrument measuring the concept (Sekaran and Bougie, 2013). The important forms of reliability which can be associated with this study is, Stability as a measure of reliability is the capability of a measure to remain constant over time, regardless of the changes in the conditions of respondents and is not affected by changes in situation. Reliability also depends on a clearly articulated study design, research objectives and target population. To strengthen reliability the research instrument should administered using different forms, to different group of individuals. In this study was achieved by recruiting participants from 2 different sectors of healthcare providers. The one company focuses on clinical research and the other company focused in the retail space. The participants were from a multidisciplinary work place.

3.13 Research Bias and Elimination of Bias

According to Wilkins and Pannucci (2011), research bias also called systematic bias, is described as ordered errors that may be present during the participant recruitment process, sampling technique used or responses given by participants, hence bias leads to inaccuracy of the study information. A bias is one that favors the outcome of another instead of the other. Allocating the sources of bias and their impacts on the final results are key elements for making valid conclusion. Bias can intentionally or unintentionally introduced by the researcher (Zohrabi, 2013). The presence of bias on a survey is unavoidable, as it can intentional or unintentional by the researcher. However, it is important that researcher is aware of such and tries to prevent the inevitable as much as possible.

The research biases that will be discussed include:

3.13.1 Sample Selection Bias

In this type of bias, the outcome of the sampling technique may be influenced by the exact type of participants that the researcher wants to recruit. These participants would be at a better position to provide the type of responses that the researcher is looking for, to influence his study (Sekaran and Bougie, 2013). In this study, the researcher recruited participants that were employed in a retail pharmacy, who deal with medical scheme claims on a daily basis. The employment sector in the pharmaceutical industry would have advantaged these participants, when providing responses. This would have allowed for greater level of understanding from employees at Medirite Pharmacy. The employees recruited from Wits RHI, were at a disadvantage, as this employment sector only focuses on clinical research and clinical trials.

This bias can be avoided by setting clear requirements of the participants the researcher wants to recruit and that the targeted population will meet the research objectives. This study was able to prevent this form of bias, by setting a defined set of inclusion and exclusion requirements (surveymonkey.com).

3.13.2 Investigator Bias

This type of bias may occurs if the investigator has a one-sided view of the outcome of the study. This may occur if the research data collection instrument is compiled in such a way that the responses will be skewed towards the desires of the investigator. In this study the survey questions were compiled in relation to the study objectives and therefore could not be manipulated.

This form of bias can be eliminated, if the researcher keeps an open mind about the outcome of the study. A truthfully articulated study, that is reliable and valid, will produce consistent results.

3.14 Ethical Considerations

3.14.1 Principle of Ethics

The principle of ethics in this study applies to good ethical conduct of all researchers (who collect the data) undertaking the investigations, to all participants (who provide the data) and all healthcare service providers. Moreover, that the director and investigators guiding the study will act in good faith (honestly and fairly) towards all data collected and not manipulate results and that the researchers will set aside or surrender their self-interest and preferences. The ethical clearance for the study was approved by the UKZN

3.15 Chapter Summary

This chapter presented an outline of the research, discussing the methods of data collection and analysis. The process that was employed to recruit and select the participants was considered. The data was collected using a questionnaire. The data was analyzed using the SPSS data analytical software system, which presented the results as percentages, determined the relationship between the variables and the regression model. Measures of Validity and Reliability were considered to determine whether a particular content of the intended study was able to measure the concept that it was supposed to. The possibilities of research bias were discussed. The research findings were discussed on chapter 4.

Chapter Four

Research Findings

4.1 Introduction

This chapter provides an overview of the finds from the analyzed data. A total of 91 responses were collected from the participants and then analyzed. These responses were collected from employees at Wits RHI (representing the research sector in the healthcare industry) and Medirite Pharmacies employees (representing the retail sector in the healthcare industry). The results stood for the measure of correctly answered questions on the questionnaire. The questionnaire was buildup of 4 sections, namely section A provided the important demographic information such as gender, age and employment status. Section B characterized information such as membership, contributions and benefits. Section C provided information such as minimum benefits, scheme rules and scheme penalties and section D provided information for the opportunities of fraudulent activities. The correlation between the variable was tested using a Chi-Squared test and Regression model analysis. The measurement and analysis of the findings was linked to the research objectives.

4.2 Demographic Data Analysis

The construction of demographic or personal information questions is an essential part of the survey because these questions allow the researcher to know more about the participants. The demographic information that was collected for the study included age, marital status and gender.

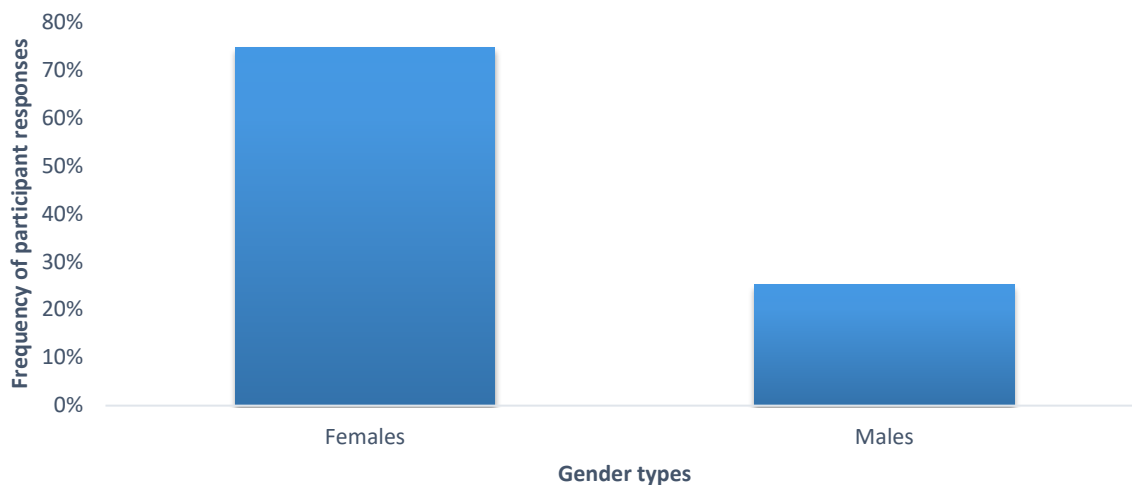


Figure 4. 1 Gender Types

The results indicated on Figure 4.1 above, indicate that the majority of the gender type that voluntarily participated were women.

4.2.1 Participant Age Data

This question focused mainly on the different age groups of the participant, so that the researcher will get to know the participants who are involved in the study.

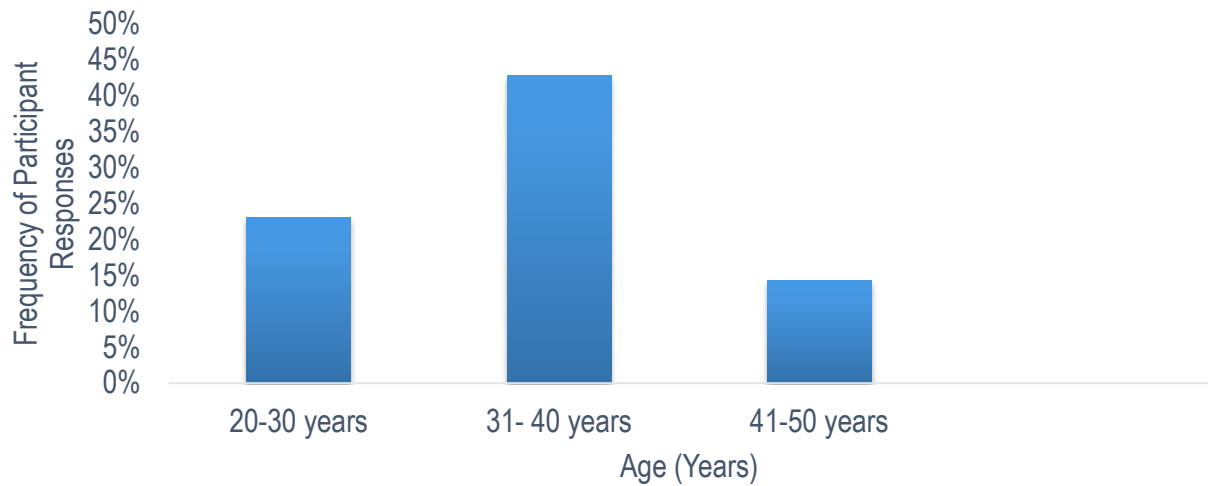


Figure 4. 2 Participant Age groups

The representation of results on figure 4.2 indicated that the ages of the participants were spread from the twenties to fifty. The results showed that the participants over their thirties to mid-forties were the dominating group.

4.2.2 Employment Status Data

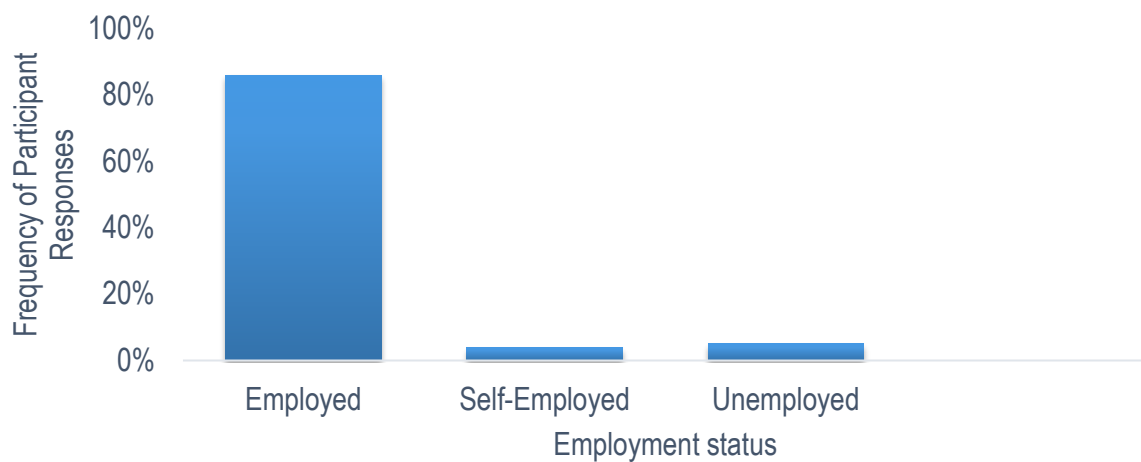


Figure 4. 3 Participant Employment Status

One of the selection criteria requirements for recruitment into study was to be employed. It is evident that figure 4.3, shows that a majority of the participants who were recruited were employed.

4.3 Level of knowledge about Medical Schemes and Fraudulent Activities

4.3.1 Section B: Membership, Contributions, Benefits

This section of the survey was created to gain an understanding of the knowledge that members held, pertaining to the questions. Participants were asked questions about membership, contributions and the benefits.

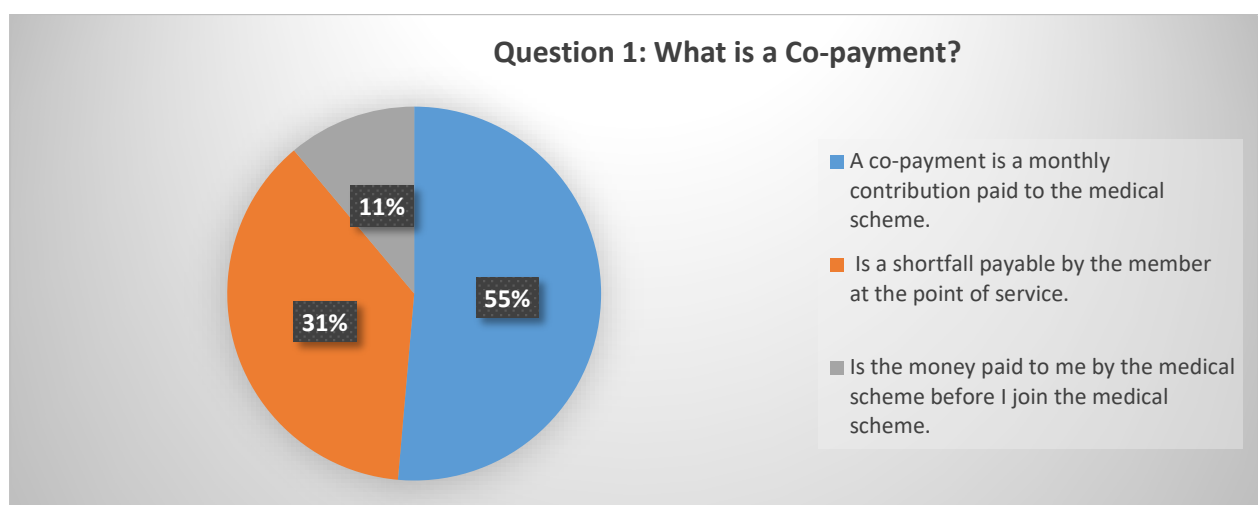


Figure 4. 4 Member understanding of Co-payments

A co-payment is a method of cost sharing strategy imposed by the scheme. The results indicated on figure 4.4, showed that the participants were familiar with the term and understood a co-payment as being a monthly contribution paid to the medical scheme.

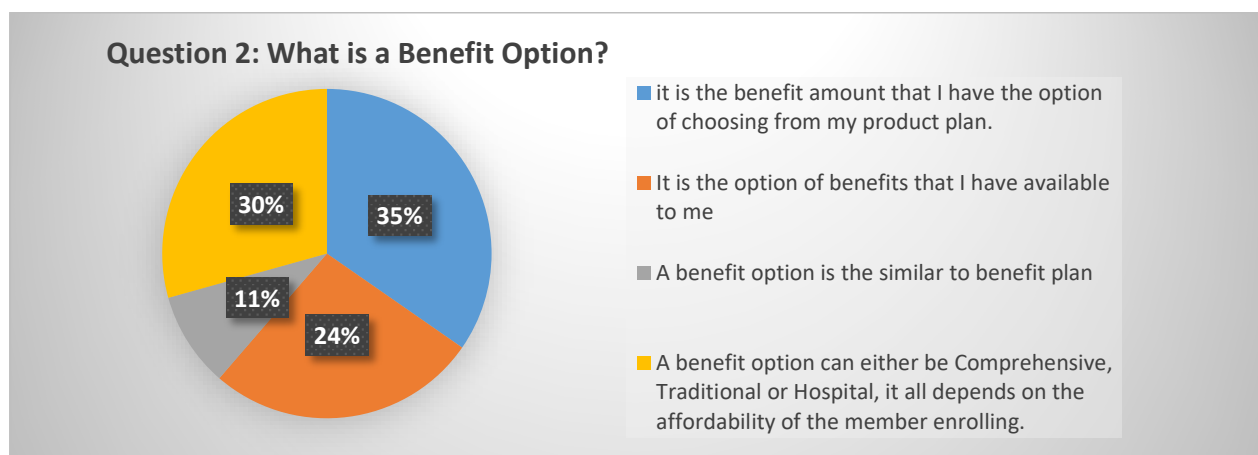


Figure 4. 5 Benefit Options

Benefit options are established to achieve simpler benefit designs. It can be seen from figure 4.5, that a majority (76%) of the participants were not informed about the functioning of benefit designs

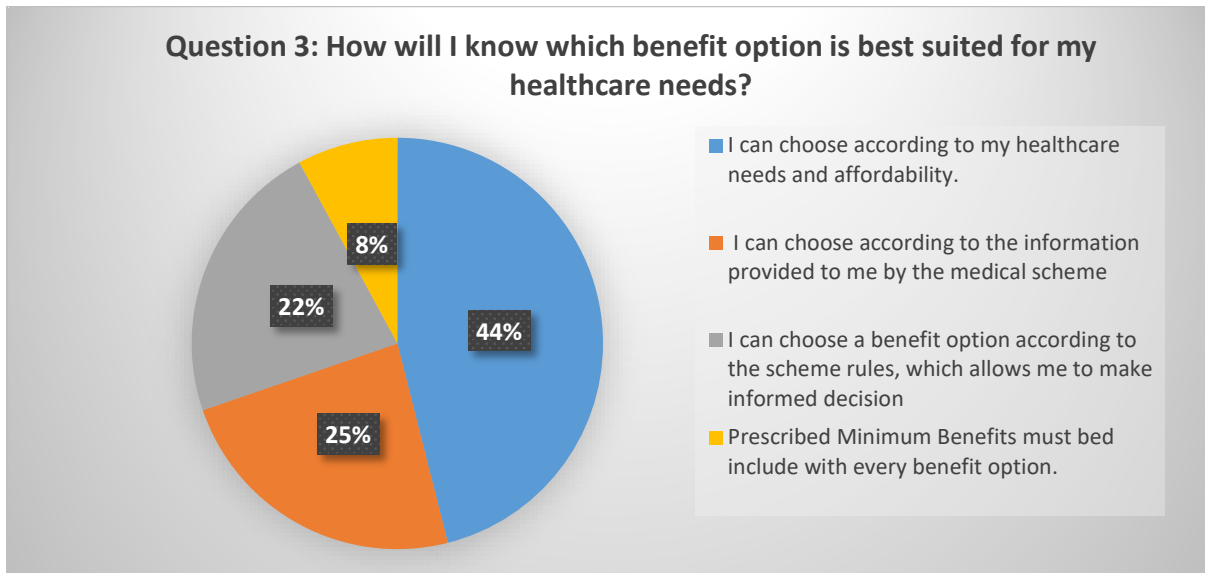


Figure 4.6 The suitability of a Benefit Option

The suitability of a benefit option is specific for different individuals, depending on the affordability and health needs. According to the responses that were analyzed for the question, the responses were not precise at indicating how an individual would choose a benefit option suitable for the healthcare needs.

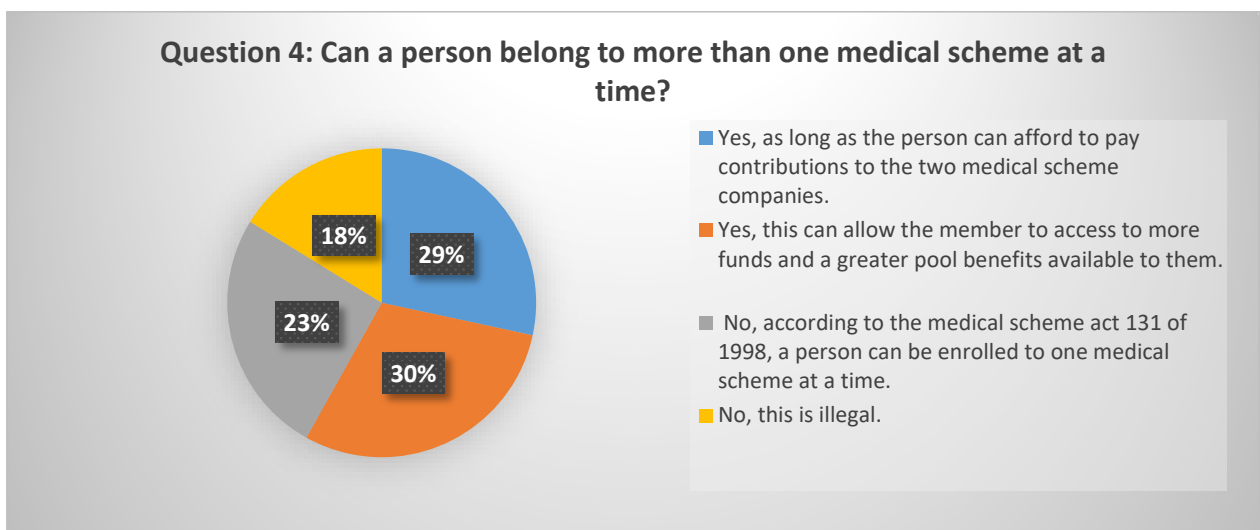


Figure 4.7 Dual Membership

It is evident from figure 4.7 that participants did not hold common understanding of the Medical Scheme Act 131 of 1998 rules. It can be seen that only 41% of the participants provided correct answers.

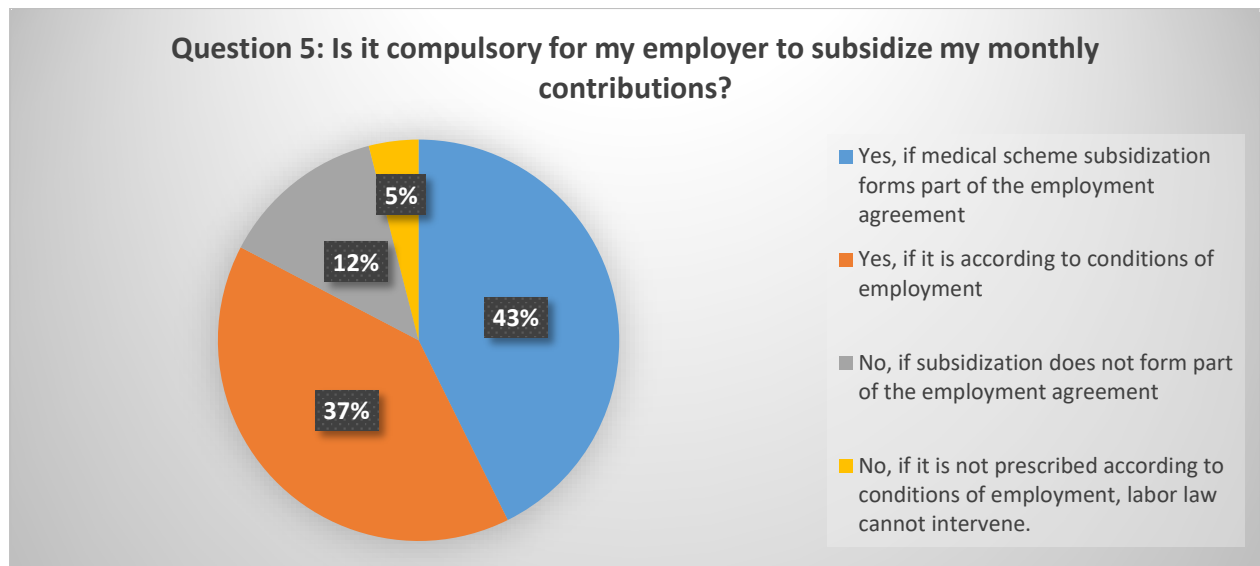


Figure 4.8 Subsidization of scheme contributions by the employer

Employer medical scheme subsidization is not an entitlement but forms part of the employment agreement contract. According to the analysis of responses, participants have a low level of knowledge regarding the factors that should be considered in an employment contract, particularly looking at medical scheme contributions by the employer.

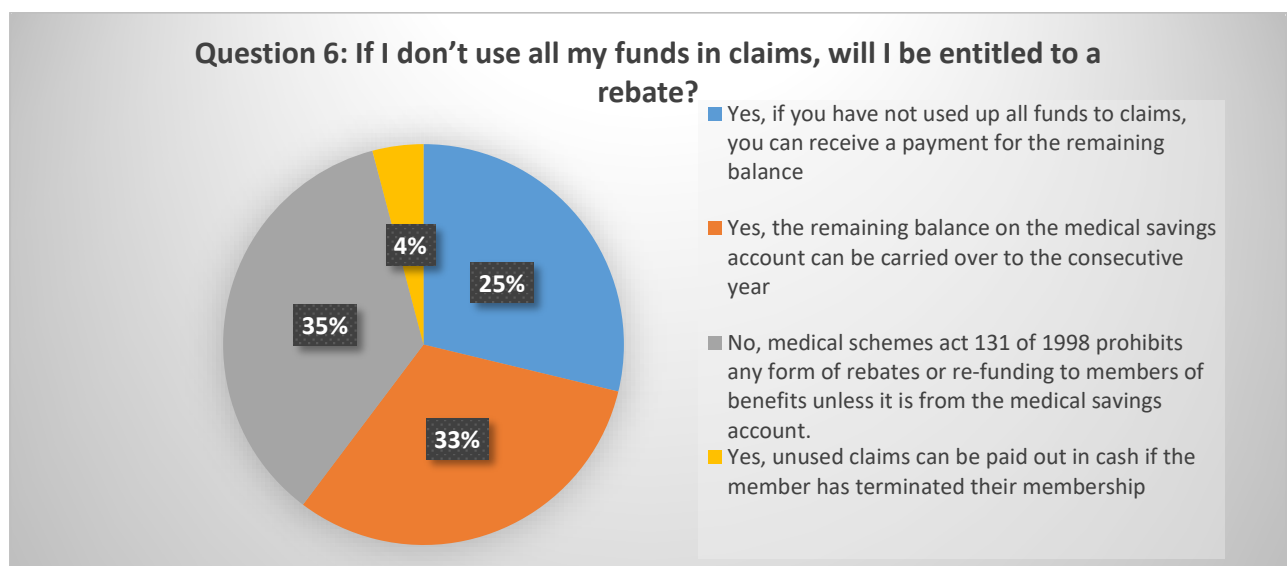


Figure 4. 9 Entitlements to Medical Savings Account rebates

It is evident from figure 4.9, that a minority of the participants were able to provide correct responses regarding claim rebates or re-funding, while the level of knowledge held by the majority of participants responded that rebates are assigned to members should the situation permit.

4.3.2 Section C: Minimum Benefits, Waiting Periods, Late Joiner Penalties

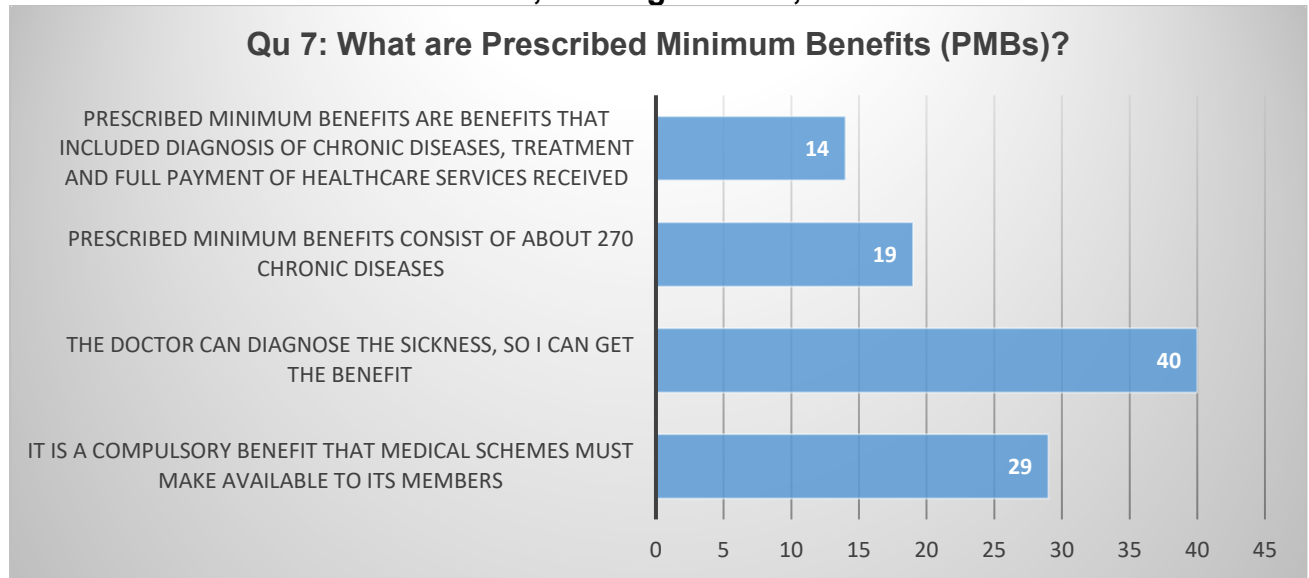


Figure 4.2 Prescribed Minimum Benefits

Prescribed minimum benefits form an important part of a benefit option, specifically for individuals who have chronic illnesses. The figure 4.10 shows that a greater part of the responses were informed about the terminology of prescribed minimum benefit, which is what the question set to examine.

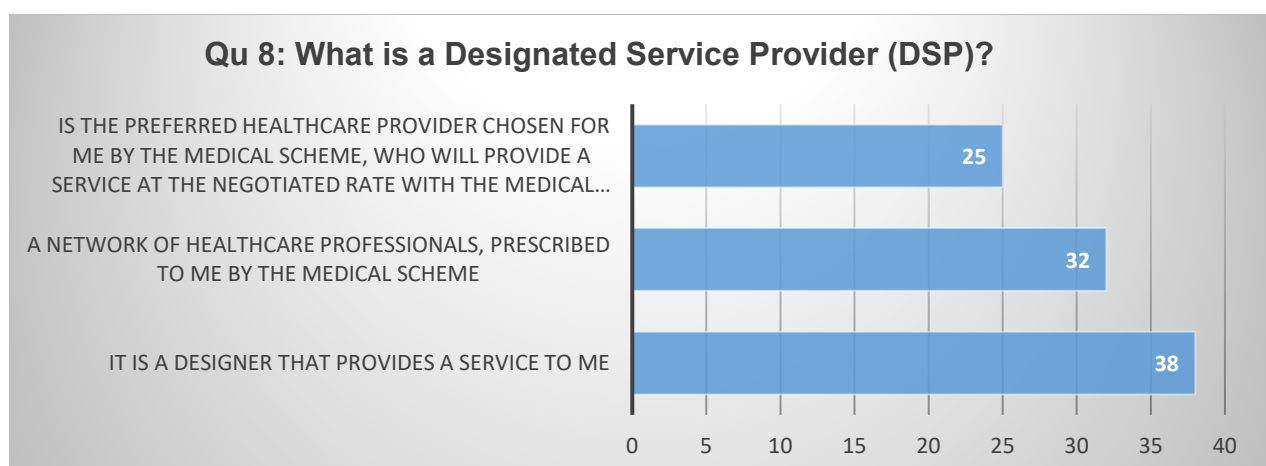


Figure 4.11 Designated Service Providers

A vital part of the scheme rules, is the setup of network service providers. The responses collected and analyzed for this question revealed, participants are

conscious of network service providers as determined by the scheme. The individual has an obligation to use a designated service provider, to avoid penalties that may be imposed by the medical scheme.

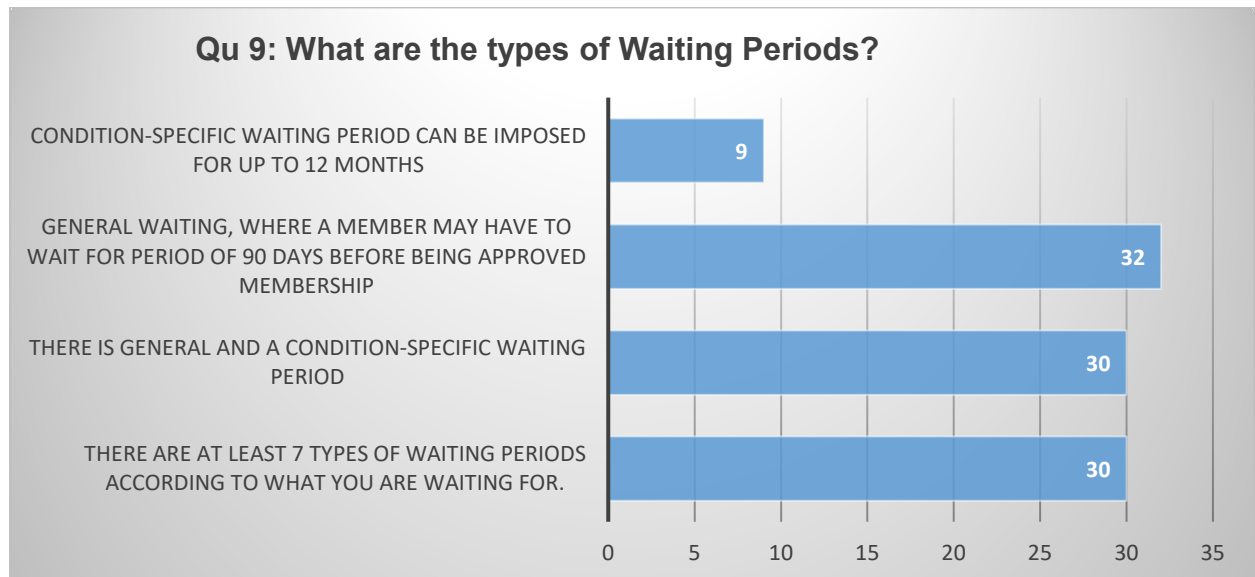


Figure 4.12 Waiting Periods

According to the analysis of responses represented by figure 4.12, it is apparent that only 30% of the participants responded incorrectly to the question. Waiting periods form part of scheme rules, which should be explained to the member during enrolment process. It is extremely important that members understand what scheme rule apply to which situation.

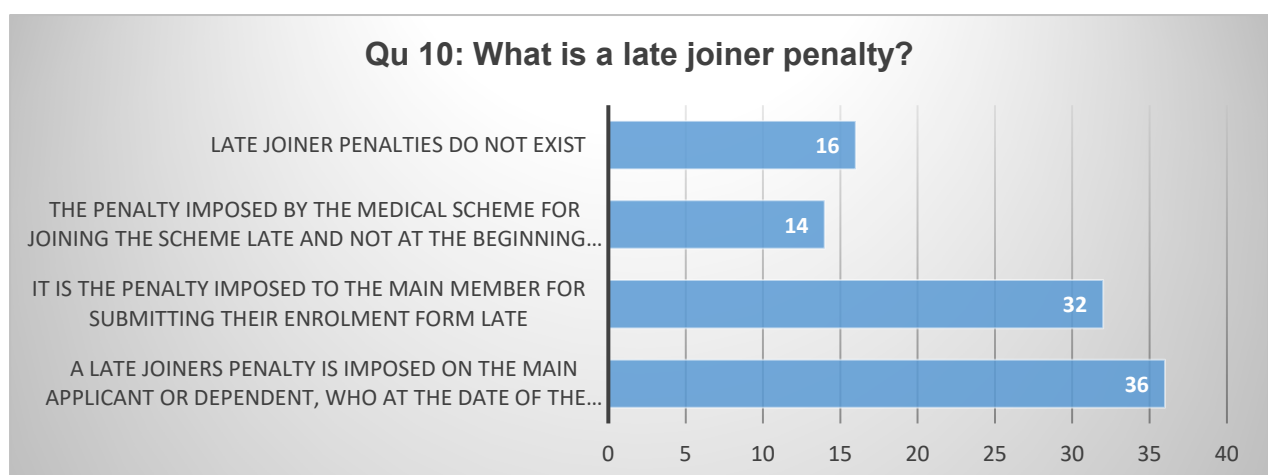


Figure 4.13 Late Joiner Penalties

It is evident on figure 4.13, out of all the participants that provided a response for this question, the majority of responses were attributed to being uninformed about the term Late Joiner Penalties.

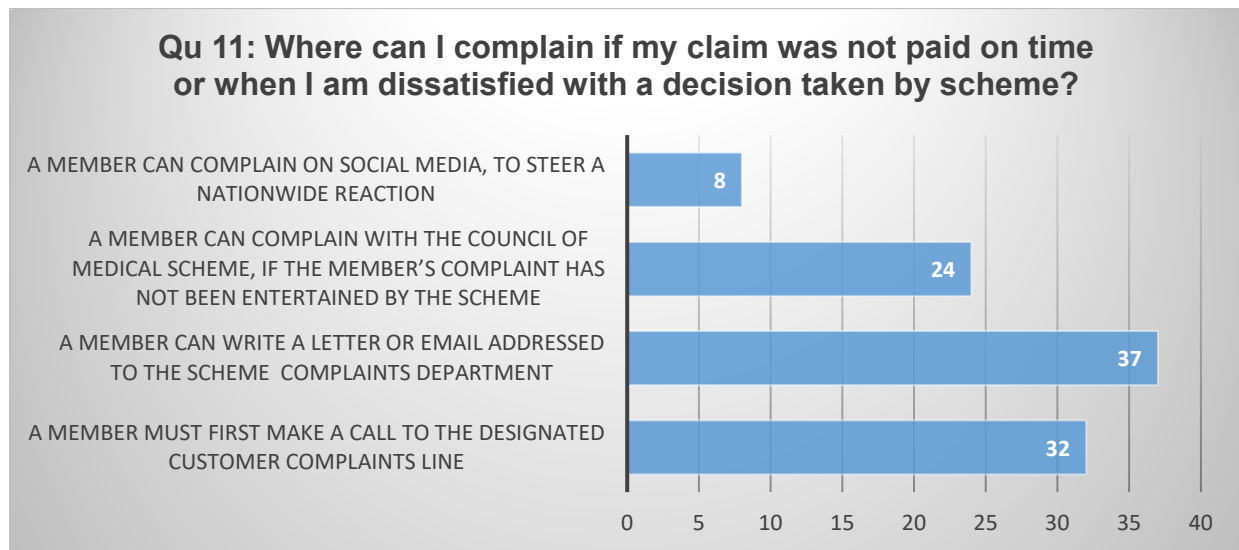


Figure 4.14 Consumer Complaints

The council of medical scheme provides a platform for which complaints may be escalated and resolved. A generalized perspective can be considered that nowadays with the power and take-over of technological advances, communicating straight to the medical scheme is more efficient. According to the responses reviewed and analyzed, it is evident that out of all the participants that provided responses, a majority of the participants indicated that they would write a letter or email the medical scheme.

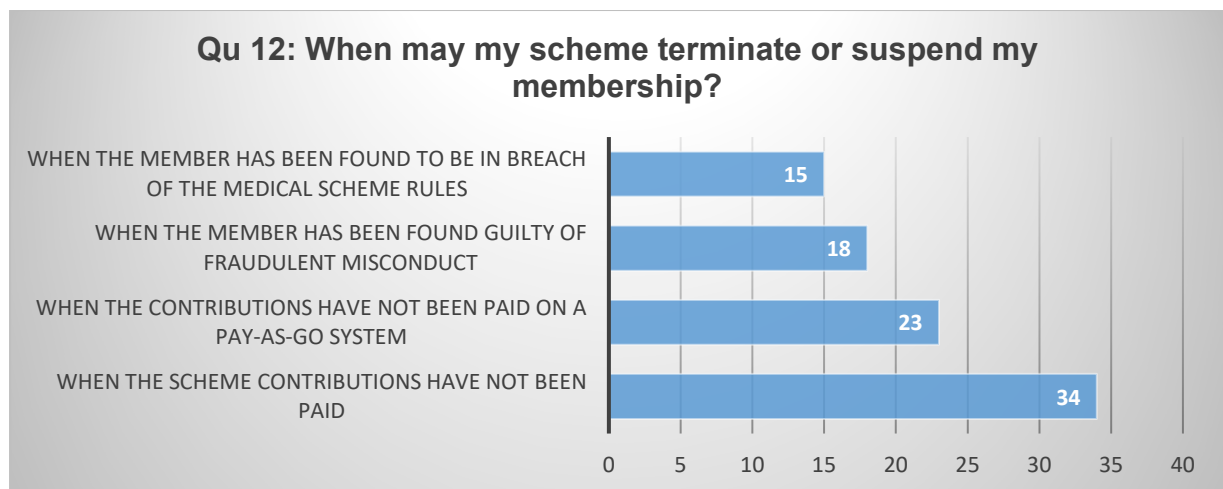


Figure 4.15 Termination or Suspension of Membership

The termination and suspension of membership is a rule prescribed by the medical schemes act. This question was created to determine whether participants understood the reasons behind termination or suspension of membership. It is evident from figure 4.15, that a lesser part of the participants held a significant level of knowledge regarding the termination and suspension of membership.

4.3.3 Section D: Fraudulent activities in the medical scheme sector

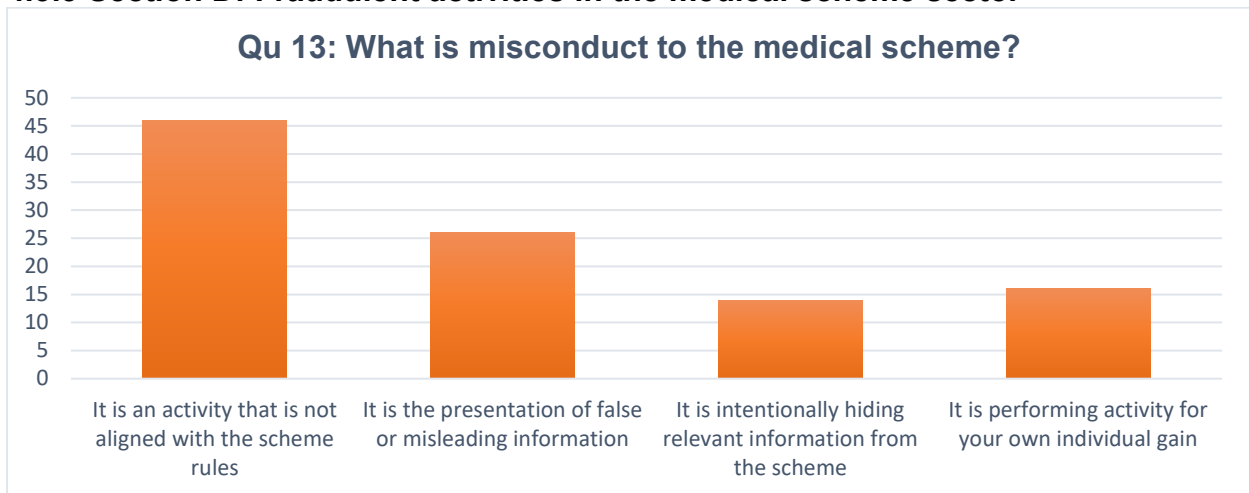


Figure 4.16 Member Misconduct

This question was created to examine whether the participants were able to decide which activity or behavior would be considered as misconduct to the medical scheme. It is evident on figure 4.16; the majority of the participants indicated a correct response, that any misconduct to the scheme would not be aligned with the scheme rules.

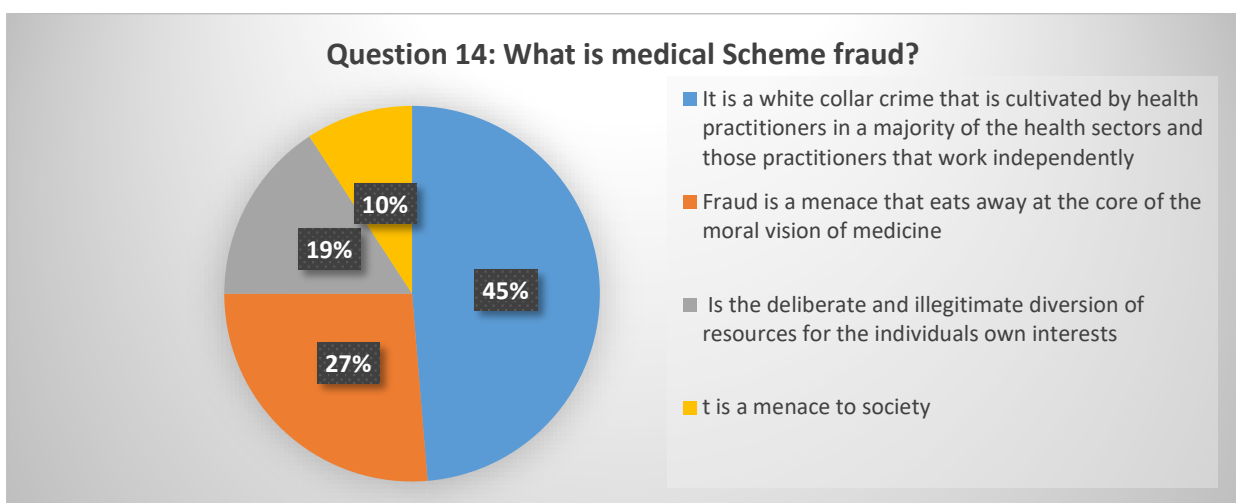


Figure 4.17 Medical Scheme Fraud defined

This question was formulated to establish whether participants would be able to define the concept of medical scheme fraud. The data that was analyzed from the survey showed that almost all the participants believe that fraud in the medical scheme industry is a white collar crime, cultivated by health professionals.

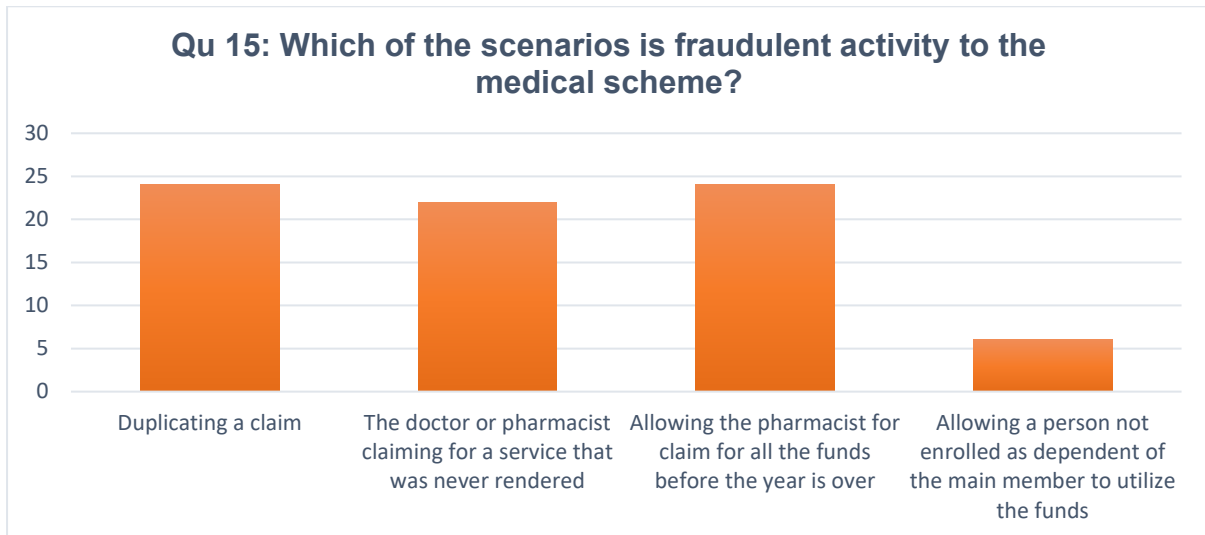


Figure 4.18 Scenarios relating to fraudulent activities in the medical scheme industry

The composition of this question was to determine whether participants would be able to identify a scenario where a fraudulent act was taking place. It is evident from figure 4.18, that participants were able to apply their knowledge when responding to this question. The response rate was relatively comparable.

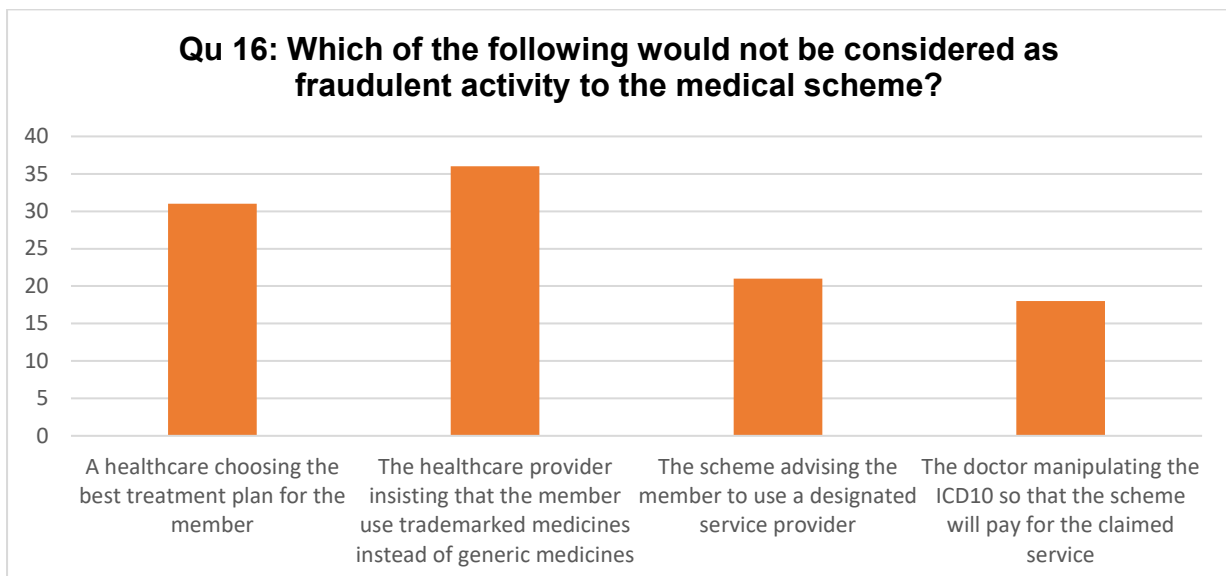


Figure 4.19 Activities that are not considered to be fraudulent

Even though, participants were able to identify the constituents of fraudulent activities, this question was composed to examine whether participants would be able to identify an act that is not considered to be fraudulent. Although the intention of the healthcare provider is to act in the best interest of the member. The healthcare provider initiates a treatment plan that falls in line with the scheme. Generic substitution is encouraged by all medical schemes.

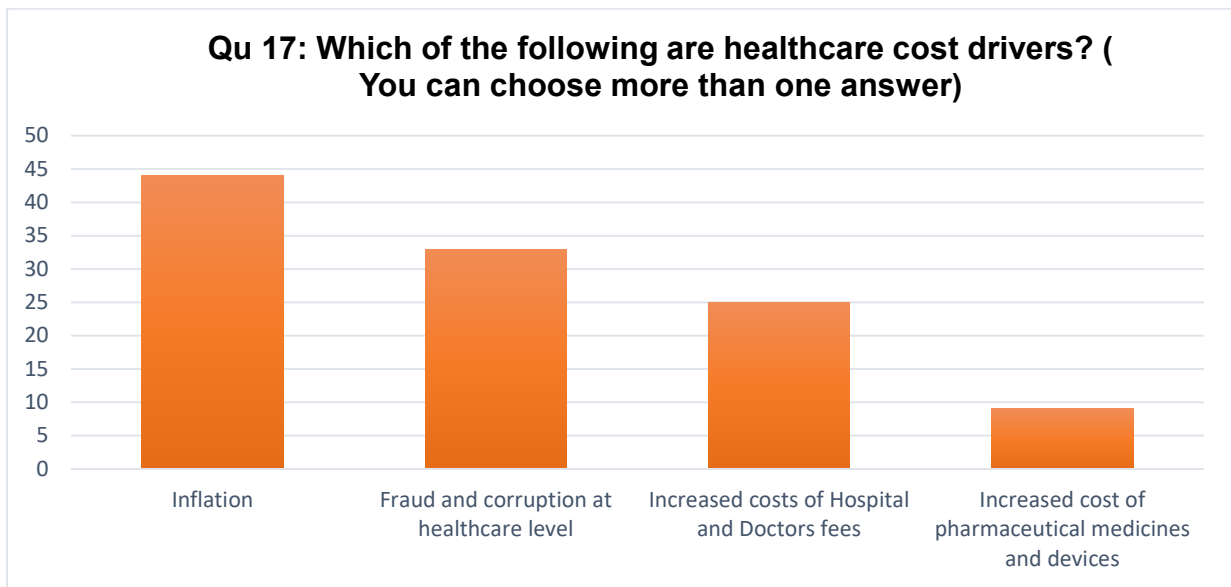


Figure 4.20 Private healthcare cost drivers

This question was made to determine whether participants were familiar with the cost drivers affecting the private healthcare system. Upon analysis of the data collected from the surveys, the figure 4.20, showed that participant’s responses indicated inflation as the major cost driver, followed by fraud and corruption.

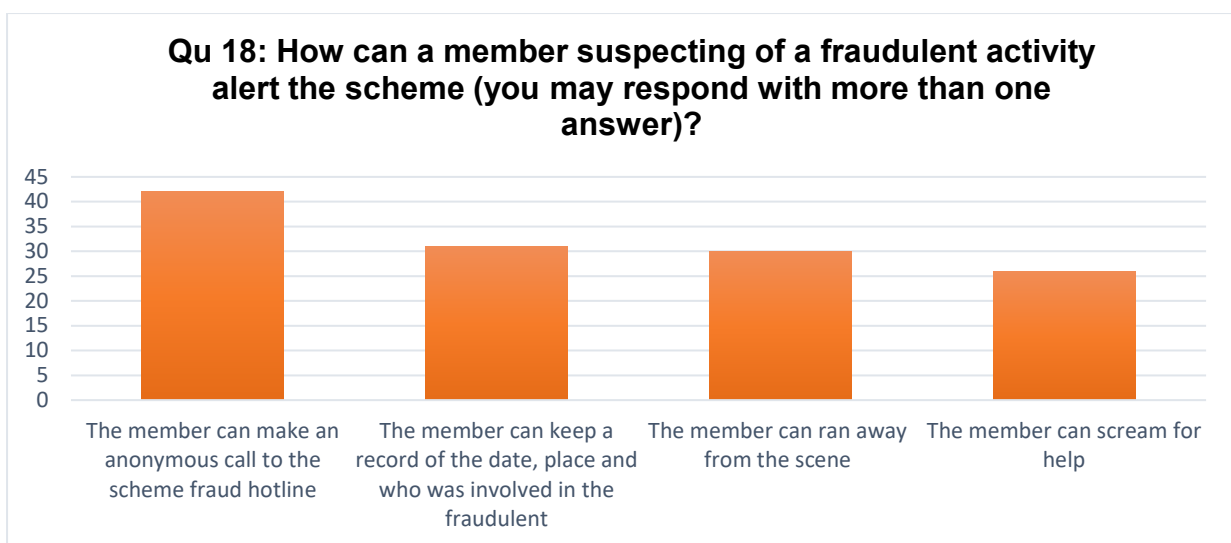


Figure 4.21 Whistle-blower in the event of suspected fraudulent activity

This question was formulated to examine whether participants were aware of which platforms are available to them, in the event that they witnessed or were targets of a fraudulent act. In this question participants were given the option to pick more than one response. As shown on Figure 4.21, the greater part of the responses indicated that a member can make an anonymous call to the medical scheme.

4.4 Comparison of the Key Elements of Medical Schemes and Fraudulent Behaviours

The following figures, measure the comparison between the key elements of the study. This histogram presents the overall score for section B. Each questions had only one correct answer. It was found that none of the participants knew all the answers and 9% incorrectly answers all the questions. Only 18% scored three or four points indicating having average knowledge (Figure 4.22)

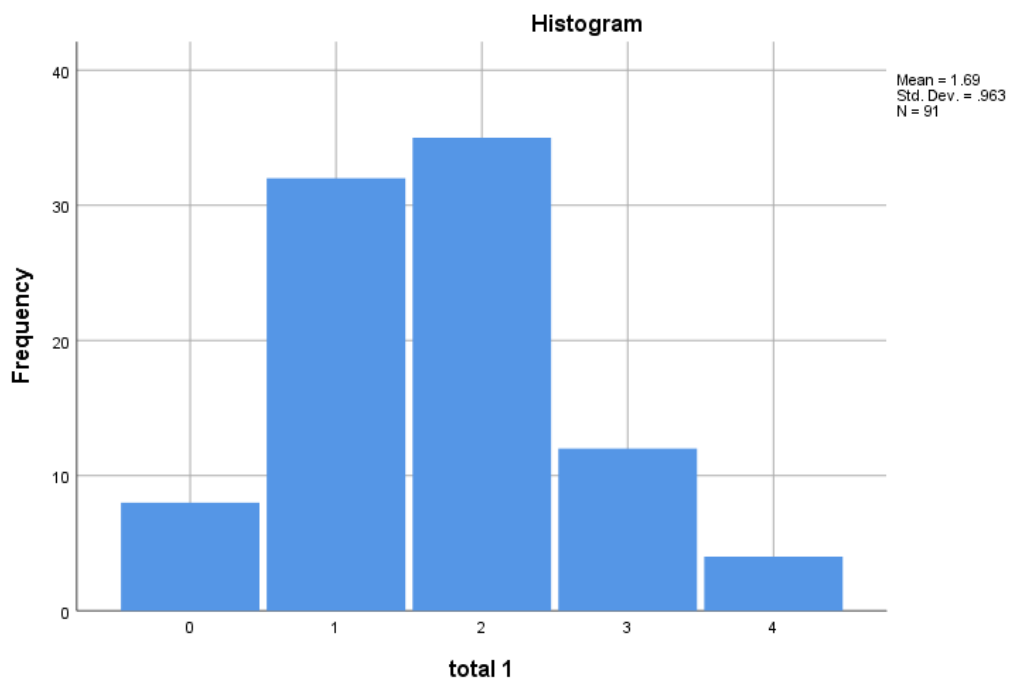


Figure 4.22 Distribution of overall scores regarding membership contributions and benefits

Similarly, to determine the knowledge regarding minimum benefits, waiting periods, late and joiner penalties six questions were asked. Results showed that 13% of the participants did not answer correctly to any of the questions (Figure 4.23). It was also found that only 17% scored three or more points indicating having average knowledge (Figure 4.23).

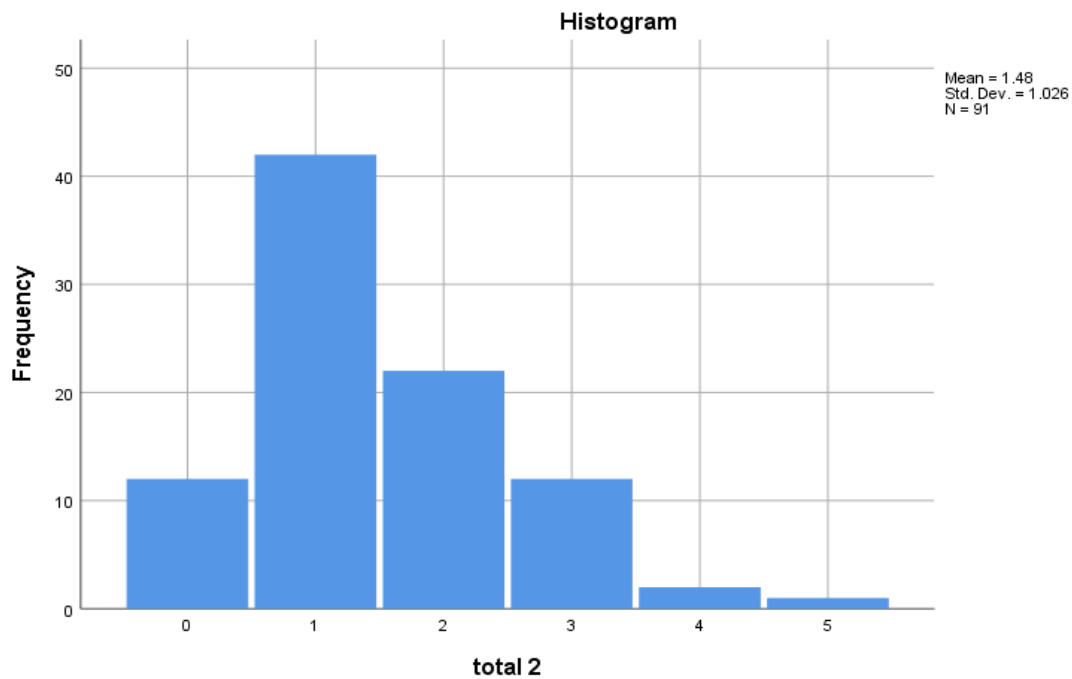


Figure 4.23 Distribution of overall score regarding, minimum benefits, waiting periods and late joiner penalties

There were six questions asked about Fraud in the Medical Scheme Industry. It was found that more than half of the participants had scored three or more indicating they had above average knowledge regarding fraudulent activities in the industry (Figure 4.24).

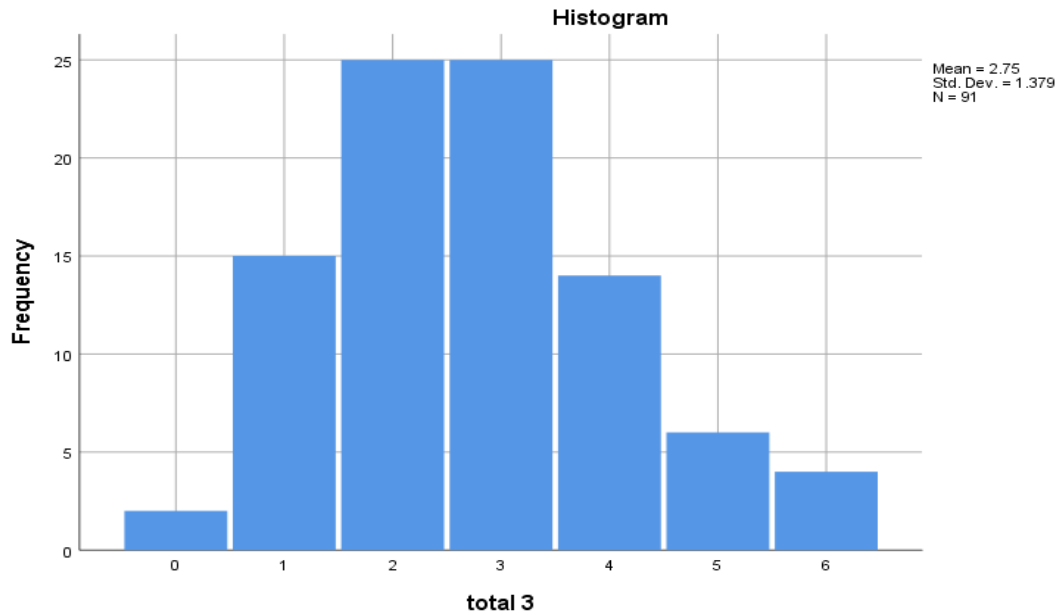


Figure 4.24 Distribution of overall score related to fraudulent activity in the medical scheme industry

Measures of Mean and Standard Deviation for Section B, Section C and Section D

Medical Scheme key elements	Mean	Standard Deviation
Section B: Membership, contributions, benefits	1.69	0.963
Section C: Minimum Benefits, Waiting Periods, Late joiner penalties	1.48	1.026
Total	3.17	1.989
N= 91		
Opportunities of Fraudulent activities	Mean	Standard Deviation
Section D: Opportunities of Fraudulent activities	2.75	1.379
Total	2.75	1.379
N=91		

Table 4.1 Mean and Standard Deviation overall results for medical schemes key elements and opportunities of fraudulent activities

The overall measure of the central tendency (mean) of distribution, for the medical scheme key elements is 3.17, as it evident on Table 4.1. This measure points out

where the centre of the data can be found, this means that the values lie at point 3 on the x-axis. The overall mean for the section is 2.75. The standard deviation is a measure of dispersion, which is an indicator of the spread of distribution. The overall measure dispersion for the medical scheme key elements was 1.989, which shows that the participant responses were almost 2 points away from the means and for opportunities of fraudulent activities the overall standard deviation was 1.379, which was a 1.379 points away from the mean. For both medical schemes key elements and opportunities of fraud have small standard deviation measures, which can be evidently seen on the histogram by a tall narrow shape (surveystar.com).

4.4 Tests for Normal Distribution of data

The overall scores were tested for normality. The normality tests that were used to measure normality of distributions were the Kolmogorov- Smirnov (K-S) and Lilliefors tests. The Lilliefors normality test applies improvements on the K-S test and the Lilliefors normality test is used when the population mean and standard deviation is not known. The Kolmogorov-Smirnov normality test measure if the results are likely to follow some distribution in a population (SPSS.com).

Table 4.2 Normality Test Output

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
total 1	.204	91	.000	.896	91	.000
total 2	.275	91	.000	.873	91	.000
total 3	.168	91	.000	.936	91	.000

5

a. Lilliefors Significance Correction

The results obtained from the tests of normality revealed that the overall scores for Section B, C and D were not normally distributed. The main reason for this is due to the responses for sections B, C or D, either being receiving very good responses or very poor responses.

4.5 Test for the relationship between the level of knowledge of medical scheme and the opportunities of fraudulent activities.

The correlation tests were performed to find out whether the 2 variables are related to another (Sekaran and Bougie, 2013). The Spearman’s correlation test was used to determine with the 2 variable are associated or independent of each other. The correlation coefficient has a scale of between -1.0 to +1.0, where 1 indicates perfect positive correlation and -1 indicates a perfect negative correlation. The significance of p , which for this study is $p = > 0.05$, which means that the association is closer towards zero and indicates a weak correlation between the 2 variables (statisticssolutions.com). The measure of the spearman’s correlation coefficient was significant for research objective 3.

Where indicates, Total 1: Section B, Total 2: Section C, Total 3: Section D

Table 4.3 Spearman's Correlation Coefficient Output

Correlations					
			total 1	total 2	total 3
Spearman's rho	total 1	Correlation Coefficient	1.000	.095	.050
		Sig. (2-tailed)	.	.371	.640
		N	91	91	91
	total 2	Correlation Coefficient	.095	1.000	.031
		Sig. (2-tailed)	.371	.	.769
		N	91	91	91
	total 3	Correlation Coefficient	.050	.031	1.000
		Sig. (2-tailed)	.640	.769	.

		N	91	91	91
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Spearman’s correlation test showed that there no significant relation exists among Section B, C, D ($p>0.05$) (Table 4, 2).

4.6 Chapter Summary

The outline of this chapter included the research findings of the study. All sections A, B, C, D, were analyzed and the findings presented. The findings from Section A included demographic information of the participants, such as AGE, Gender and Employment status. There were a higher percentage of female participants than males. The highest age group that participated was 31-40 years. The requirements of the inclusion criteria was employment of the participant, the findings revealed that a high percentage of the participants were employed.

Section B and C findings showed good responses for key medical scheme terminology such as, co-payments, prescribed minimum benefits, and designated service providers. The findings of this section also showed acceptable responses for scheme rules and scheme penalties, which require clarity to achieve a good understanding of the concept. Questions that tested a broader of understanding of those medical scheme concepts, such as best suited benefit option, legal requirements of medical scheme and subsidization of scheme contributions, receiving rebates, showed responses that were not as good as terminology used by medical scheme, scheme rules and scheme penalties.

The findings on section D, indicated that good responses were achieved for terminology such Fraud and misconduct. Also, the responses that measured that participant’s capability to identify a scenario that depicted a fraudulent activity, regarding the medical scheme, received good results. The findings to the question, requesting participants to identify a scenario that doesn’t qualify as a fraudulent activity received poor responses because participants still believe that the doctor has the right to decide, whether a member should use original trademark medicines (which are more expensive), instead advising the member on generic substitution. Participant responses also showed that, they are knowledge about what processes

to follow, should there be a scenario that they suspect, is fraudulent. According to the responses, participants believe that inflation is the primary healthcare cost driver.

The spearman's correlation coefficient test was to measure the association between research objective 1 and research objective 2. The correlation tests indicated that the 2 variables were independent of each other. The central of tendency and dispersion were measured, which indicated the location and distribution of the data along the x-axis. The normality test for distribution was tested and revealed a non-normal distribution. The next chapter will interpret and discuss the research findings in relation to the research objectives.

Chapter 5

Interpretation and Discussion of Research

5.1 Introduction

The purpose of this research study was to examine the level of knowledge or information that participants who were recruited into the study held about their medical scheme and the level of information that the participants held about fraudulent activities within medical scheme industry. In this chapter, a discussion about the outcome of the findings is presented and responses provided by participants will be answered according to the research objectives and previous literature.

5.2 Research Objective 1:

To investigate whether members hold knowledge about their medical schemes in order to take informed decisions

The objective of section B and C was to determine from the results collected and analysed whether the participants possessed a general understanding of the functionality of the medical scheme, which they were enrolled with. During enrolment, medical schemes have a responsibility to inform the member of all important key features of the scheme, particularly membership requirements, benefit options and structure, contributions, scheme rules and scheme penalties and any legal requirements relating to the scheme. The onus is on the medical scheme to provide reports, which show up threats to the scheme, which affect the financial stability of the scheme and members as well.

5.2.1 Contributions, Memberships, Benefit Options

5.2.1 Contributions

5.2.1.1 Employer Subsidized Contributions

The origination of medical scheme funding is from membership contributions, which are increasing significantly year on year, over and above that of inflation. Members

cannot afford the prepaid contributions, as the financial situation in South Africa lacks stability. As discussed in chapter 2, community rating is a method used to charge a contribution to all members that are on a specific benefit option, such that all members on a particular option must by law pay the same contribution, regardless of age or health status (Erasmus, Ranchod, Abraham, Carvones and Dreyer, 2016). Questions for this section were formulated to examine the perceptions and understanding about contributions, subsidization and rebates. An employer may only subsidize contributions of the employee, only if this falls within the employment agreement.

Entitlement to medical scheme is presented as a condition of employment or service agreement by employer, either as a cost-to-company or remuneration benefit (Erasmus, Ranchod, Abraham, Carvones and Dreyer, 2016). The responses for this question revealed that participants were of the understanding that subsidization of contributions by the employer is mandatory part of employment. As mentioned above, this is not true; employers subsidize contributions for a restricted medical scheme or pay a portion of the contributions. This means that the medical scheme company will be chosen by the employer and the benefit options will be tailor-made for the employer. However, only people employed with the company, may join a restricted medical scheme (e.g. GEMS, BANKMED, CAMAF), it is not open to the public. Monthly contributions are paid by principal members on a monthly basis (prepaid or pay-as-you-go contribution). If this contribution is not received from the member responsible for the payment, the membership will be suspended and the member will not be able to have access to the scheme benefits (Kaplan and Ranchod, 2015).

5.2.1.2 Impact of Employer subsidized contribution on cost sharing methods

The employer contracted medical schemes, offer a limited coverage to their employees, subject to the geographical market. This can be accomplished by applying reference prices, which means that the limitations of employer contracted scheme, to an employee, is that the employer will pay up to a certain limit and the rest will be payable by the employee. Therefore, any medical and hospital services that are subject to reference pricing, are not limited to the employer's contribution. There is a potential risk of the patient is being exposed to very high cost sharing, if

the patient chooses not to use network service providers (Robison and Brown, 2017).

5.2.1.3 Rebates and Refunding of contributions or remaining funds

Members would appreciate any rebates that come from their medical schemes. The response rate analyzed from the questionnaires found that 68% of the participants would really be grateful for any form of cash rebate from the medical scheme. However, this is not the case as determined by the medical scheme act 131 of 1998, which prohibits any form of rebating or refunding of monies to members from the medical savings account. This means that a member cannot claim back their contributions in cash. Instead, funds in the medical savings account that have not been used up during the year can be carried over into the new financial year. Moreover, the member can receive cash, only in agreement with the respective medical scheme, when their membership has been cancelled and terminated (medical schemes, 2004).

5.2.2 Membership

5.2.2.1 Implications of a dual membership

According to the rules prescribed by the Medical Schemes Act 131 of 1998, which were formulated to co-ordinate and protect its members, states that a member may not be enrolled with more than one medical scheme at a time because it is illegal. If a person was previously registered with another medical scheme while pursuing another, it is by law that the applicant must cancel the membership with the previous medical scheme before registering with other (medical schemes, 2004). This attempt was established to prevent members from belonging to two or more medical schemes at the same, which would allow them to have access to greater pool of benefits across different medical schemes. This was also implemented to protect members from being exposed to a greater financial risk and escalation of contributions (Kaplan and Ranchod, 2015).

The responses analyzed for this question indicated that respondents were of the perception that an individual can indeed belong to more than one medical scheme.

No one individual can belong to two medical schemes at a time (medical schemes, 2004). The consumers of private healthcare must understand that medical scheme products are not treated like ordinary policies, where a person can have multiple other policies in order to boost other policies. However, a person can boost the benefits of the scheme, with other products offered by the medical scheme such as gap cover and hospital cash back policies (Discovery Health Matters, 2017).

5.2.2.2 When may my scheme terminate or suspend my membership?

With this question, the responses were all appropriate for the research survey, the participant had the choice to choosing more than one answer. According to the medical scheme 131 of 1998 act and the scheme rules, medical scheme contributions are based on the member's monthly contributions, which are paid as a pay-as-you-go system. This means that, if contributions are not received or not paid on the agreed upon date, the member will not be entitled to any benefits, access to funds, emergency services of any nature, until such a time that the member has brought the membership account up to date. If this contribution is not received from the member responsible for the payment, the membership will be suspended and the member will be able to have access to the policy benefits (medical schemes, 2004).

5.2.3 Key terms used by medical scheme

5.2.3.1 Co-Payments: Co-payment as an element of cost sharing strategies

A co-payment is an element of Out-of-pocket payments (OOPs). OOPs refers to the method used by medical scheme companies to share or shift costs incurred by members during a service. This method is used as an attempt, for these companies to be less liable for costs (Kaplan and Ranchod, 2015). A co-payment is that amount payable by the member, when the charged fee-for-service is greater than what the medical scheme is willing to pay. It is an out of pocket payment which applies either as a difference in the cost at the point of service or secondly as a fixed amount before service can be initiated and thirdly can be charged as a penalty payment on those participants that don't comply with scheme rules of using designated service providers (medical schemes, 2004).

The method of Co-payments and Levies was introduced to serve 3 purposes (McLeod, 2015):

1. To discourage members from seeking out of network healthcare services
2. To discourage members from making frivolous and grudge purchases
3. Cost-sharing mechanism between the medical scheme and the member

Any rationing mechanism which prevents patients from freely expressing demand for healthcare”, such as co-payments, are described as demand-side rationing (Hicks, 2011). This means that the higher the demand for a particular service, the greater the need to control costs by implementing demand-side rationing. There is a relationship between demand of a particular service and the price of the particular service consumed, therefore a change in demand causes a change in the given price (Connolly, 2009). It was evident from the data analyzed, that participant general knowledge and understanding of the terminology used to describe co-payments, indicated that the participants were familiar and understand the meaning of co-payments. Any individual, who belongs to medical scheme, has had to pay a co-payment for service, one way or another.

5.2.4 Benefit Options

Benefit options are provided by all medical schemes either as executive options, comprehensive options, saver options, network options, low-income-earner options and hospital only benefit options. It is a unique offering of tailor made benefit options by different medical scheme companies, so that applicants may choose from a variety of choices, according to their healthcare needs, number of dependents and affordability (Kaplan and Ranchod, 2015). Benefit options are chosen primarily on the basis of income and healthcare needs. All benefit options or plans must be inclusive of prescribed minimum benefits. It is evident from the analyzed responses, that a greater part of responses did not confidently understand the terminology of a benefit option and its purpose (Quincy, 2014).

This term is introduced at first during the enrolment process, where the individual should gain an understanding, as to which benefit option is affordable and best suited for their healthcare needs. The findings revealed poor responses, such that participants were not certain about the correct response. In many cases, when taking

on new employment, the employee will be given an application to apply for membership to a medical scheme. Employees, who have never belonged to a medical scheme, will be faced with a frustrating of choosing a benefit option that suits their healthcare needs and affordability. Therefore, an assessment of an individual's healthcare needs and affordability should be taken into consideration. According to Quincy (2014), the following questions should be considered when choosing a benefit option:

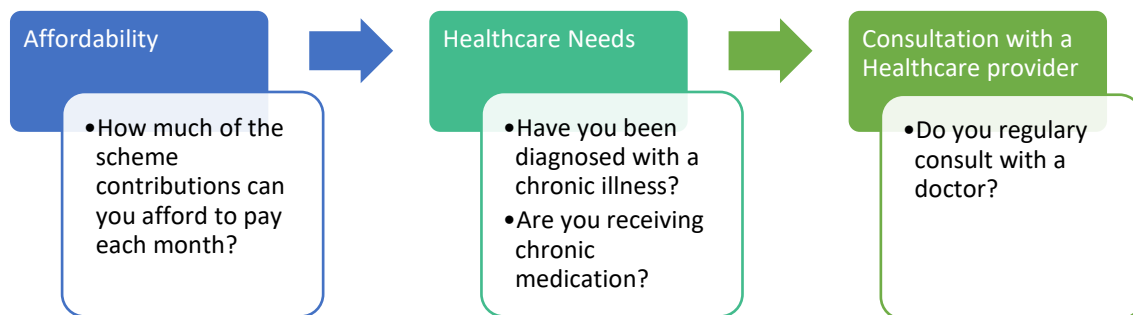


Figure 5.1 Benefit Option Self-Assessment processes

The assessment questions should be used as a self-assessment for individuals before making a choice on which medical scheme to enrol with, as well as the benefit options and cost implications of that benefit options. This self-assessment tool is a practical for individuals who are at crossroads with which benefit option to choose.

It is important for any person who enrolls with a medical scheme; understand the term, benefit option and which option is best suited for their healthcare needs and most importantly affordability. Many people are misguided into choosing more coverage than they really require.

As suggested by Concannon, Khodykov and Kotzias, 2015, it is important to include benefit option counselors at the start of the recruitment stage, by supporting the individual's decisions and also understanding the important information needed by the individual. It is important that a person applying for membership with a medical scheme is aware of which channels can be used in order to make informed decisions. Medical scheme companies have an open door policy, with branches that are located for its members to walk-in freely and get assistance with any questions. Although, there are more restricted medical schemes than there open medical

schemes, it is still essential for medical scheme to provide a broader explanation of why a member should choose a benefit option that is best suited for their needs and how the benefit option will operate. The data analyzed indicated that 69% of the participants agreed that they would choose benefit options according to healthcare needs and affordability in accordance with the information provided by the medical scheme, which is consistent with the first step of choosing a benefit option. An examination of the applicant's lifestyle, healthcare needs, affordability and number of dependents should be analyzed, so that assistance can be more specific for the needs of the applicant (Kaplan and Ranchod, 2015).

5.3 Scheme Rules

5.3.1 What are Prescribed Minimum Benefits (PMBs)?

The framework within which the national health policy, shall provide guidelines for the coverage of minimum levels of essential healthcare, will be beneficial to both public and private sectors (Taylor, Taylor, Burn, Rust and Grobler, 2007). Medical Schemes Act 131 of 1998, made it compulsory that all businesses operating as medical schemes, should provide a defined set of benefits, to ensure that members diagnosed with chronic illness, received continuous healthcare benefits, called Prescribed Minimum Benefits (PMB). In 2000, 270 conditions according to their diagnosis and treatment regimens were announced to make up the compilation of PMB-Chronic Disease List (Medical schemes, 2004). Emergency medical conditions got their own classification of conditions that medical schemes had to cover.

According to the Act, a PMB must include (medical schemes, 2004):

- The diagnostic plan of the condition
- Treatment plan and receive treatment
- Monitoring and care costs of the disease progression
- Medical emergency in relation to the condition

The response rate analyzed revealed that 62% of the participants were knowledgeable about the terminology and understanding of PMBs. This result

purported that PMB's are one of the key features offered by medical schemes, whether or not an individual has been diagnosed with a chronic disease.

PMB's form the bulk of medical scheme offerings because disease management is so expensive. When individuals are choosing a benefit option, it is pivotal that they have an broadened understanding of the functionality of PMB's, noteworthy attention must be paid to the monetary value of funds available for a specific service and the percentage of coverage provided by the scheme. Being cognizant of the above-mentioned information, will help individuals (members) to get around frustration and disappointment with no trouble (Taylor, Taylor, Burn, Rust and Grobler, 2007)

5.4.2 What is a Designated Service Provider (DSP)?

The establishment and agreement by those participating healthcare professionals at a national scale marked the beginning of transformation for the public and private healthcare sectors. As described by the Council of Medical schemes, these networks are referred to as Designated Service providers or Preferred Provider Networks. Because of the, unregulated private sector, the general and specialist medical practitioners charging exorbitant fees for services and the conspiracy between private hospitals and medical practitioners(who are shareholders) to charge high in-hospital costs, lead to many medical scheme companies not being able to cope with the extreme costs of overpriced claims and pay-outs (medical schemes, 2004).

These network providers were established with the aim of reducing the cost of healthcare services (cost-containment methods), through negotiating volume discounts from the providers or by securing agreements with them (Jurisich et al, 2014). The expectation of this agreement was such that healthcare professionals would jump at the opportunity of becoming network providers. This agreement would form part of scheme rules, so that medical scheme companies, would protect themselves from overpricing tactics of some healthcare professionals.

The response rate analyzed from the questionnaires indicated that 57% of the participants have knowledge about the terminology and understanding of designated service providers. This means that members have knowledge about who their

designated service providers are and that if the member decides not to use a designated service provider, scheme penalties will apply. Therefore, knowledge about DSPs is crucially important to avoid OOPs.

5.4 Medical Scheme Restrictions (Scheme Penalties)

5.4.1 What are the types of Waiting Periods?

As a consequence of not being a member of a medical scheme, a waiting period may be imposed on a member who is a first time applicant. Waiting periods can be classified as either being, General waiting period, where a member may have to wait for period of 90 days before being approved membership or Condition-specific waiting period for up to 12 months (medical schemes, 2004). Examination of responses from the questionnaire showed that 59% of the participants picked appropriate responses, which according to the medical scheme rules, there are 2 waiting periods that may be imposed on a new applicant, a general and a condition-specific waiting period. Waiting periods do not apply to the following circumstances (medical schemes, 2004):

- Prescribed minimum benefits:
- Provided that a member had no break in coverage of more than 90 days.
- Provided that the applicant was never enrolled with a medical scheme previously
- Dependents that are children
- A member changing from one benefit option to another within the same scheme.
- A member who no longer qualifies for a particular medical scheme (restricted) and has to consider enrollment with another.
- An employer (restricted medical scheme) who has a changed medical scheme company and taken its business to another medical scheme.

5.4.2 What is a late joiner penalty?

A Late Joiners penalty is imposed on the main applicant or dependent, who at the date of the application being processed is 35 years or older and has never been a member of a medical scheme. The dependent or main member will continue to pay the late joiners fees for the entire duration of their membership (profmed, 2016). The response rate from the analyzed questionnaire data found that, 62% of the participants provided poor responses for this research. Unfortunately, late joiners fees are compulsory and will forever be included in the members' contributions indefinitely. This penalty is inflicted so that the members that started contributing towards medical scheme coverage from a young age (before the age of 35 years) and those that started contributing towards medical coverage late in life (at 35 years or older) are at equal levels of contributions (medical schemes, 2004)

5.5 Where can I complain if my claim was not paid on time or when I am dissatisfied with a decision taken by scheme?

The customer complaints department of the medical scheme company is the first step in lodging a complaint. When a member has been treated unfairly, received or billed for service that they are not satisfied with, the member should communicate this, by means of a phone call, email or clearly hand written letter to the complaints department (Discovery Health Matters, 2017). Some medical scheme companies have the option of lodging the Complaint online on the company's website. Once the complaint has been completed and submitted to the relevant department, a ticket or reference number for the respective complaint will be issued. According to the responses analyzed 69% of the participants indicated that they would either call the medical scheme customer complaints departments or write a letter.

The member will be able to use a ticket or reference number to track the complaint. If the complaint is resolved to the satisfaction of the member, the complaint can further be escalated to the council of medical scheme department. The Council of Medical Scheme is a foundation for which customers or members can lay complaints, after the member has failed to reach a resolution during the internal dispute resolution processes. The council of medical schemes may suspend the registration of any

medical scheme company that fails to comply with the provisions of the Act (medical schemes, 2004).

5.6 Objective 2: To investigate whether members have knowledge about opportunities of fraudulent activities within the medical scheme industry

5.6.1 Fraud and corruption in the medical scheme industry

5.6.1.1 What is misconduct to the medical scheme?

In this question, all responses were appropriate to contribute to the research objective. Any action that is deemed to be of misconduct to the medical scheme is an activity that contravenes the scheme rules. This would include actions that involve misrepresentation of information, hiding important information during enrolment process, conducting activities that are not intended for the best interest of the scheme, claiming of a service or procedure that was never performed, submitting incorrect or inaccurate false invoices and statements, issuing a patient or dependent with a medical certificate, prescriptions or any other investigative document purporting examination by the doctor and then claiming benefits, a healthcare professionals acting out of scope of practice, with no legal qualification.

All the responses indicated by the participants for the scenarios of which fraud can be identified are appropriate for the purposes of this research. The falsification of claims submitted for services rendered, can be manipulated to reflect a duplication of claims. Also, healthcare professionals have the tendency of submitting claims that were never rendered, with the member never knowing about the claims. Some members will want to claim all the funds available in the medical saving account before the year is finished, therefore approaching a willing healthcare professional to claim for items or cash payments (Joudaki et al, 2015). Some members may allow family members, friends or other people that are not enrolled as dependents on the scheme to use the medical scheme.

Patients suspecting of any fraudulent behavior can inform the Health Professionals Council of Health Professionals in South Africa (HPCSA), is a regulatory body which was started in accordance of the Health Professionals Act 56 of 1974 guidelines. The purpose of this regulatory body is to monitor and regulate the professional

behavior of the healthcare professionals. The HPCSA is a place where the patient can complain about untoward behavior experienced with the healthcare professional (Nortje and Hoffman, 2016).

5.6.1.2 What is medical aid fraud?

The matter of ethical practices in medicine is not on a voluntary basis, but forms a very innate and integral part on the provision of healthcare (Nicolaidis and De Beer, 2014). The connotation of fraud in the medical scheme industry is broad and cannot be defined using a single term. Fraud and corruption has crippling consequences on growth of the healthcare system (Chattopdhyay, 2013). It is a setback on the progression of systems that are established to create a first world healthcare system. The opportunity for fraud to manifest in this system is due to the unregulated nature of the healthcare system and the several role players that have an influence on the type and quality of information that shared with the recipients of healthcare (Choonara and Eyles, 2016).

The private healthcare sector is particularly vulnerable to corruption and fraud, due to asymmetries of information. This is because of the unevenness of information held by the different role players. It is because of a lack of accountability and transparency by the stakeholders that the opportunity of corruption can be created (Vian, 2008). Fraud in the healthcare sector has been studied and researched extensively over many years, as different anti-corruption units across various countries try to combat this menace (Chattopdhyay, 2013). Fraud is the deliberate deception of a thing or person for their own personal or financial gain.

The forms and dynamics of corruption in private healthcare and implications thereof in health and medicines should be considered. Corruption undermines the patient's trust in the physician and healthcare delivery system. The patient-physician relationship is very sacred relationship, such that the patient trust's the doctor with their life, since it is the doctor who holds the required information and knowledge to help the patient (Chattopdhyay, 2013).

5.6.1.3 Which of the following would not be considered as fraudulent activity to the medical scheme?

It is also essential to keep in mind that not all healthcare professionals are involved in fraudulent behaviors. Many healthcare professionals have integrity and provide services that are patient-centered on. This approach provides care by taking into consideration the patient values, characteristics and attitudes. It provides respect and an understanding of the patient responses (Inzucchi, Bergenstral and Buse, 2012). A qualified healthcare professional has the right to advise the patient on the intended treatment plan that will produce the best treatment outcomes. Additionally, if the patient is not satisfied with proposed treatment plan, has the right to refuse treatment (Kaplan and Ranchod, 2015). A doctor does not have the right to force the patient, to agree to receive a particular type of treatment. It is illegal for any healthcare professional to insist that a patient use a trademarked drug, instead of what the medical scheme has advised the member to use. The member has the right to refuse that particular drug, for a generic substitution. It is against the scheme rules and law as deemed by the medical schemes act for a doctor or any other healthcare professional to manipulate ICD10 codes, for his/her own interest (medical schemes, 2004).

5.6.1.4 How has fraud and Corruption found a commonplace in the healthcare sector?

In the previous discussion of information sharing, one factor that jumped out from the entire discussion is that, the healthcare sector is a multidisciplinary, highly specialized sector with various expert characters contributing to delivery of care to the patients (Wilson, 2010). Special consideration should be made for the existence asymmetries of information, which built barriers for reliable information to be shared regularly amongst the role players (Rispel, De Jager and Fonn, 2015). According to the OECD (2017), a high degree of uncertainty may be created, as to the usefulness of the information. The patient expects that he will receive different treatment from the different encounters with the health workers, such that they receive different information at every point of service.

Besides, service providers hold specialized information and knowledge and conversely the patient has limited information and is reliant on the health worker to expatiate upon their knowledge they have. The main reason, is that formerly the decision making process was strictly reserved for the healthcare professionals, since they had a qualification and acquired expert knowledge through education, therefore the healthcare professional knew best (Kon, 2010). In addition, pharmaceutical companies hold vital information about drug research and drug advances. Constituents of fraud and Corruption are blurred both at governmental and private institutions, which makes it difficult to assess and measure employee perceptions (Lowenstein, McGill and Ahmad, 2014). The foremost reason for misaligned employee perceptions is due to fraud control educational and training policies not being available. This makes it difficult to assess and measure what perceptions employees have about fraud and corruption, in order to determine the level of integrity violations. If there are programs developed to measure integrity violation, then this would be a lead to establish the root cause of fraud and corruption (Lowenstein, McGill and Ahmad, 2014).

The OECD (2017), presented an argument looking at the factors that influence fraud and corruption in the healthcare sector, why is corruption so prevalent in this sector? Some suggestions were brought forward such as:

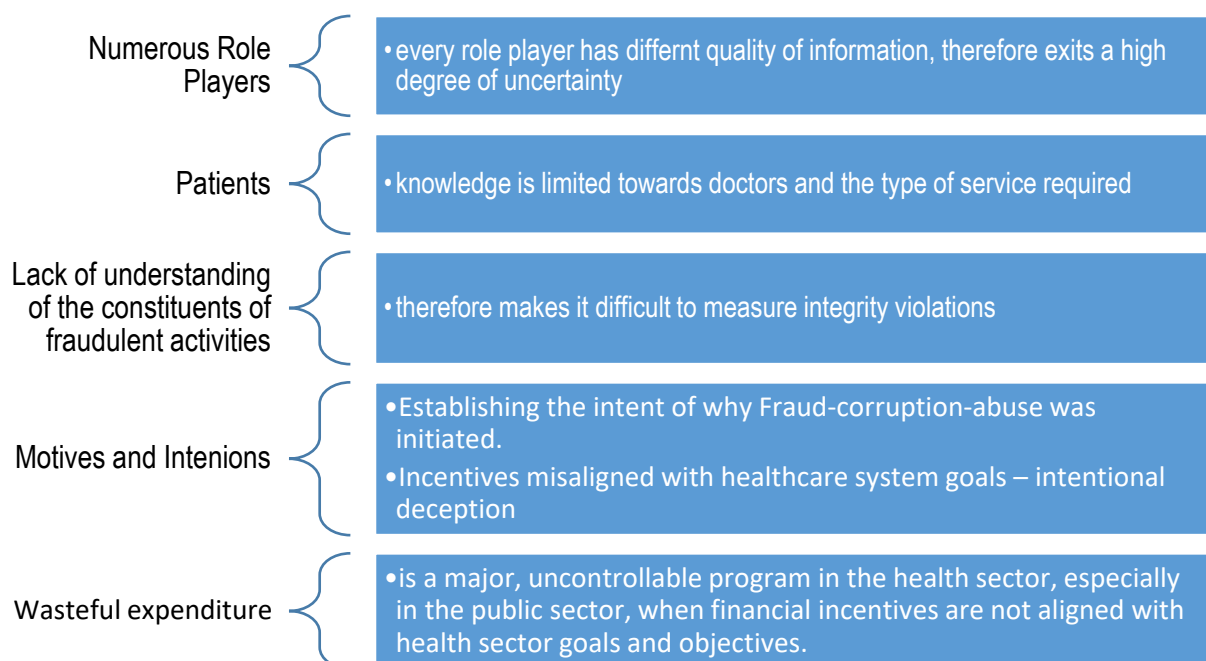


Figure 5.2 Factors contributing to Fraud and Corruption

The behavioral factors of service providers and patients can contribute to fraud and corruption. OECD created a term called integrity violations, which put a spotlight on behaviors that go against the integrity held by individuals. It is an umbrella term used to describe dishonest behaviors that fall into this basket. People are not aware of which actions can be determined to be fraudulent and corruptive, self-conflicting, abuse and misuse of resources. The main problem and biggest perpetuator of such integrity violations by healthcare provider, is that it is an unregulated turf (Choonara and Eyles, 2016).

The fee-for-service model used in the SA private healthcare sector is a model where the healthcare provider performs a service and then charges a fee. However, the Practitioner charges different service fees, e.g. it is not standard, even if the tests and procedure are the same. This allows for a differentiation of fees charged by doctors to perform unnecessary tests and procedures. The issue of the healthcare sector being unregulated allows healthcare providers to overcharge patients. But no role player wants to audit that the individual may be deceitfully gaining from patients because the service provider does not want to take accountability for their involvement. Therefore lack of accountability creates an opportunity for fraudulent activities (Choonara and Eyles, 2016).

5.6.1.5 What are the different types of fraud?

Researches have looked at the dimensions of what causes fraudulent activities within organizations and government structures. Researchers have been able to compartmentalize the most commonly occurring fraudulent activities, into the types of fraud. The concept of how fraud can be detected, by classifying it into, a type of fraud and the medical scheme environment in which it cultivates, can be detected by using internal control measures and data mining of all claims in their magnitude. The factors influencing fraud perform a very important role in determining prevention strategies. The most commonly occurring fraudulent types in medical scheme include but not limited to the following (Thornton, Mueller, Schousten and Van Hillegersberg, 2013):

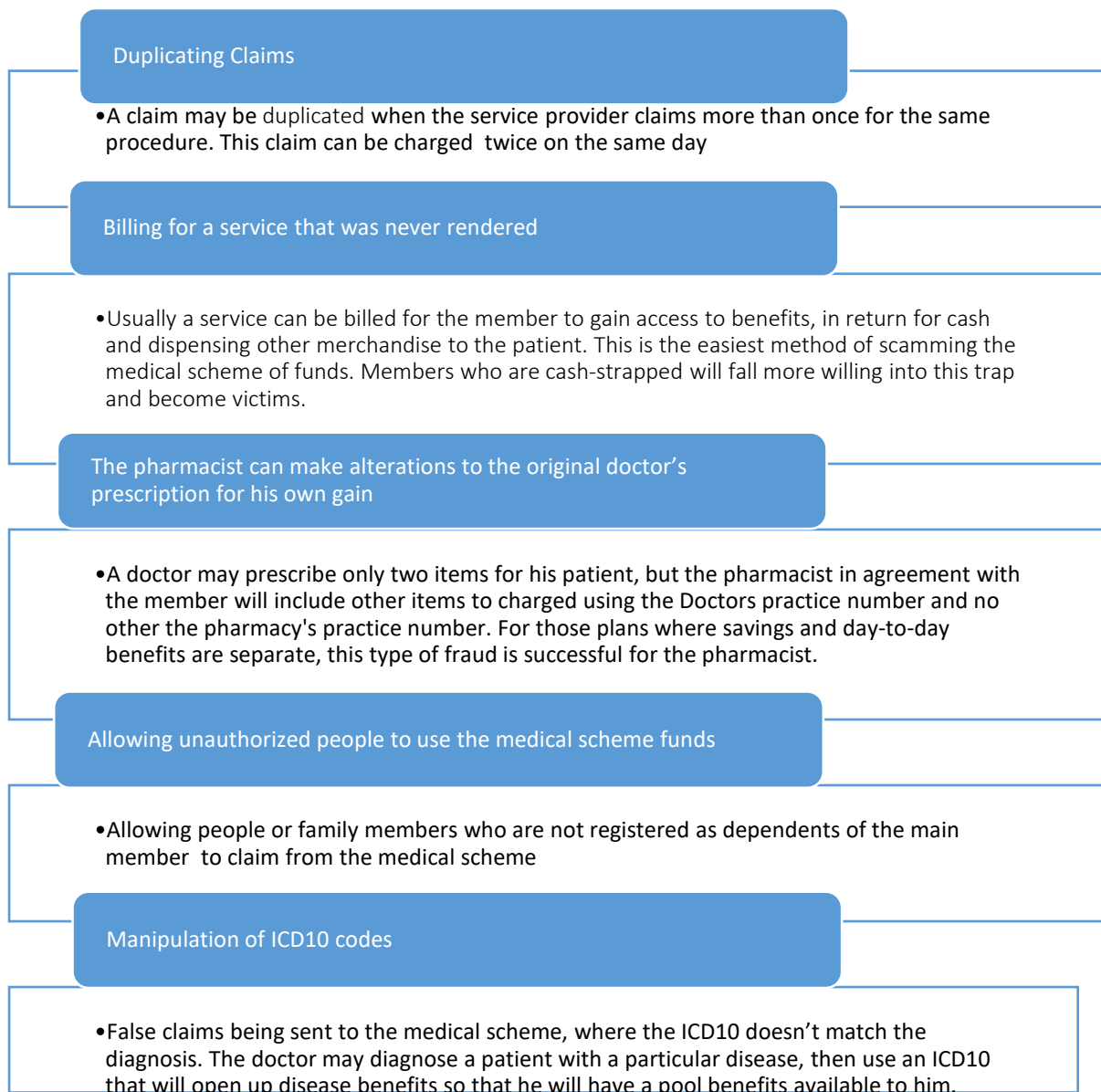


Figure 5.3 Types of Fraudulent activities performed by healthcare professionals

5.6.1.6 How can a member suspecting of a fraudulent activity alert the scheme?

This question is of great importance in tracking down and monitoring fraudsters. The system to eradicate and control fraud cannot succeed in its quest without the assistance of honest people or members with integrity, who despise fraud corruption. Medical scheme companies have set-up Fraud and Corruption departments that tackle fraudulent claims. A whistle-blower may make an anonymous call to the fraud department. The person who comes across a fraudulent behavior and witness it can

take down the details of the event, pictures, videos, to assist in bringing down then capable perpetrator (Discovery Health Matters, 2017).

5.7 Research Objective 3:

5.7.1 To determine if a relationship exists between members having knowledge about medical scheme and the opportunities fraudulent activities

The variable that were tested for correlations, were determined to be independent of each other. This finding is true for the purposes of this research. The participant level of knowledge about medical scheme cannot be related to level of knowledge of opportunities of fraudulent activities. The scope of the information provided by a medical scheme is broad and constantly changes, with the changing financial times affecting the medical scheme. Every year, a medical scheme will update and refine its scheme rules, contributions will increase, there will be addition or removal limitations, impose co-payments on some services and medicines that had no co-payments the previous year and scheme exclusion is revised yearly, etc. therefore, the information provided by the scheme year on year is not consistent, it changes with the times. On the other hand, opportunities of fraudulent activities, not be the same year on year because of the fraud prevention strategies that are established by medical scheme companies. It is important that members do not vulnerable to fraud and have their rights violated by healthcare providers.

5.9 Chapter Summary

The research findings presented on chapter 4 were interpreted and discussed in relation to the previous literature and research objectives. Firstly the results for section B revealed that the level of knowledge held by the participants was relatively low for benefit options, employer subsidization, contributions, termination of memberships and scheme rules. A descriptive survey was used to determine perceptions, attitudes and knowledge that the participants held about the medical schemes. It was evident that participants could not confidently make informed decisions without being well informed where responses were poor. Secondly, the

results further revealed that the level of knowledge held by participants about the terminology and purpose of PMB's and DSP', indicated positive responses and a good understanding. The level of understanding held by participants about medical scheme fraudulent activities revealed that participants understood the terminology of fraudulent activities. Finally, recommendations will be drawn from the discussions made in chapter 4.

Chapter 6

Recommendations and Conclusions

6.1 Introduction

This chapter brings the entire research to a close, through recommendations that are made in relation with the objectives of the study. These recommendations were put together to assist the medical scheme companies and healthcare professionals to think of methods of how they can strengthen the level of knowledge held by patients in the healthcare industry. This chapter also takes a look at the limitations that the study was subjected to, during the course of the study. Finally, conclusions will be drawn regarding the study.

6.2 Conclusion

Medical scheme contributors are the working population of SA, who pay for private health care and who can be taught or learn to act in their own interest to control costs. Information sharing and education of medical scheme members about self-management of health, in order to make better health-related decisions, such that the consumers can utilize or limit the use of health services for illness that can be self-management and prevented, emergency visits to the doctor and hospitals. Furthermore, self-management of health costs can be reduced significantly. These reduced costs can be purged back into the health services, to provide the uninsured, unemployed and poor better health services.

The following recommendations will be drawn in relation to the objectives of the study:

Research Objective 1

- **To investigate whether members hold knowledge about their medical scheme in order to take informed decisions**

The study set out to investigate the above-mentioned objective, which was revealed by the research findings. The responses indicated that the participants held a higher level of knowledge for the purpose and application of the terms for elements such as co-payments, prescribed minimum benefits, designated service

provider and fraudulent activities with the medical scheme sector. However, participants held lower level of knowledge for elements such as benefit options, medical scheme rules, contributions, medical scheme restrictions. These elements speak directly to medical schemes and the quality of content provided to their members. It is recommended that scheme companies inject resources in teaching their members about issues of benefit options (which are important for people with chronic diseases), medical scheme rules (which should be presented and explained in the simplest language and easy to understand), contributions (which is a legal requirement by the medical scheme act, comprehend of the act is equally as important), medical scheme restrictions (which should include with the scheme rules).

Research Objective 2

- **To investigate whether members have knowledge about opportunities of fraudulent activities within the medical scheme industry.**

The purpose of the study was directed at examining the attitudes, perceptions, characteristics and general knowledge that individuals that took part in the research held, about fraudulent activities, whether they were victims of fraud or not. The results of the study revealed that participants held a general understanding of fraud and they were able to identify fraudulent scenarios. Individuals must also appreciate that they can be susceptible to fraud. The major contributing factor for this susceptibility is because of the distortion of how much information and knowledge is shared with the patients. Furthermore, the patients themselves can entice the healthcare professional to commit fraud, to misuse available funds and claims for services not rendered. We move forward by being armed with information about the healthcare environment, understanding and appreciating the functionality of medical scheme and being alert of fraudulent behaviors and knowing which channels to use when communicating with relevant authorities.

Research Objective 3

- **To determine if a relationship exists between members having knowledge about medicals and the fraudulent behavior of private healthcare professionals.**

It was evident from the research findings that either of the two variables, level of knowledge of medical schemes and level of knowledge of fraudulent activities, is not dependent on each other. The responses revealed that some participants held a higher level of knowledge for questions that examine key terms used by medical schemes, such as co-payment, PMBs and DSP, other questions that examined elements such benefit options, medical scheme rules and contributions, etc. A higher level of participants was able to confidently provide responses focusing on fraudulent activities. It is recommended that medical scheme invest financially into education resources that will assist the members, to able to fight the occurrence of fraud and not allow them to be victims of fraud.

6.3 Recommendations

This study examined an important element of the role of information sharing in a multidisciplinary healthcare sector. This study paid special emphasis on the people that financially contribute to the medical scheme industry, the members of the scheme. Unlike previous literature that focused on the challenges of fraud and corruption within the medical scheme, which highlighted activities where healthcare professionals would be involved and responsible for the fraudulent activity. However, to add-on to the views of the previous researchers, this study considered the member as not being in a position to make informed decisions, if sufficient information is not provided to the member and also as being susceptible to being a suitable target or involved in activities that are aimed at defrauding the medical scheme. The following recommendations were suggested:

6.3.1 Investment

Medical schemes should invest more financial resources into social media, television, monthly magazines, member-specific training workshops or Road shows that will enable the member to be able to access required information about their health and medical scheme at any time.

6.3.2 Level of information, language and terminology provided by the scheme:

Medical schemes should take into account the depth of language used when communicating with its members. The scheme should be conscious and sensitive to the fact that scheme offer membership to highly-educated individuals and uneducated individuals. The uneducated individuals may have difficulty understanding the ambiguous language provided by medical scheme. The terminology used on the brochures should be unpackaged and written in a manner that would be simply for the member to understand the meaning, together with the intentions of the term used and where it may be applied. Basically, language used on communications and terminology should be easy to understand.

6.3.3 Level of knowledge and information shared with members or patients:

Healthcare professionals especially Doctors, Nurses, Pharmacists, etc. possess a greater level of specialized or expert knowledge through acquired education and experiences in the workplace as compared to the patient. Comparatively, patient doesn't possess the same kind of advantage. Therefore, healthcare professionals should ruminate on sharing patient-specific medical information with the patient concerned; giving the patient the ability to make their own decisions with the information they have been provided. This will strengthen the doctor-patient relationship. Throughout the process of disease management, the patient will meet different service providers with specialist information. It is recommended that throughout the disease management process that all different service providers that the patient interacts with, should furnish the patient with information regarding the healthcare problem, before the service provider makes any definite decisions, therefore the patient must be able to provide informed consent based on sufficient information received from all different service providers.

6.3.4 The impact of fraudulent activities:

Medical scheme companies should consider becoming more transparent regarding how fraud and corruption impacts the financial health and sustainability of the scheme. The contributors and healthcare providers should be able to have a complete depiction of the foundations of fraud and corruption and how this can

negatively influence private healthcare sector. What is needed is that, medical schemes should provide their members and service providers with knowledge of:

- ✓ The most commonly identified fraudulent activities as reported anonymously by members, by services providers, picked up through claims.
- ✓ The individuals involved (name and shame)
- ✓ The resolution that was implemented to remedy the fraudulent activity, whether the perpetrator was brought to book, received a penalty, notified the relevant authorities.
- ✓ The monetary value lost due a fraudulent activities and the value lost as whole from the scheme industry
- ✓ Scheme companies should think about hosting Road Shows or Campaigns focusing purely on fraud and corruption activities by the member and the service providers. Members and service providers should clearly be able to understand the Do's and Don'ts of being members and for those that are contracted to provide a service.

6.3.5 Antidote for factious claims (by healthcare providers)

1. The reversal of claims that was submitted fraudulently
2. Reporting the healthcare provider to the relevant regulatory body e.g. South African pharmacy council (SAPC) or Health Professionals Council of South Africa (HPCSA)
3. Opening a criminal case with the South African police services and recovering the losses through a civil claim
4. Removal of the healthcare provider from a respective medical scheme network for a period of 12 months
5. Non-payment of the claim, when found guilty of fraud
 - The following sanctions will be imposed on the members:

6. Once the member has been found guilty, immediate termination of membership will be made.
7. A criminal case will be opened against the member and all losses recovered

6.4 Limitations of the Study

- Identifying Respondents: The potential participants were recruited Wits RHI and Medirite Pharmacies. The two companies from which recruitment of participants was done have numerous branches across South Africa and in countries outside of South Africa. Due to the impact of cost constraints, time and difficulty in recruiting participants in areas outside of Johannesburg, this limited the ability of the study to attract all employees of these companies. Therefore, Johannesburg was well-located for recruitment purposes.
- Administering of the Questionnaire: The survey was initially emailed to participants, but the response rate was extremely slow or the survey was not answered at all. A second attempt was made to distribute the survey was achieved through personally administered questionnaires. Personally administered questionnaires, proved to receive a much faster and higher response than emailed questionnaires. Therefore, emailed questionnaire caused a time delay in receiving responses.
- The limitations anticipated from the survey responses, were based on questions that not attempted or answered, by being left blank. A blank response was interpreted as being invalid or a negative response, which would not contribute to the data analysis.
- Participants who consented to partaking in the survey but did not meet the criteria. Some participants deceptively consented to partaking in the study but knew beforehand that they did not meet criteria
- It was difficult to find previous research reviews that examined the relationship of insufficient knowledge that allows the patient to have power over decision making and the knowledge/ information that held by the patient.

6.5 Recommendations for Future Studies

In the study, the problem that was identified is based on poor strength of previous research, relating to the level of knowledge held by members of medical schemes, the rights of the members to information being provided to them, the level and quality of knowledge that healthcare professionals must share with patients.

- Future researcher should turn their focus on design a study the level of information, content of information that medical scheme companies are providing to their members.
- Future research should look at those concepts of the medical scheme that members are struggling to understand, to determine whether the information is good enough to be shared with members.
- Future research should continue to develop strategies will help medical scheme companies to control the increase of contributions.

6.6 Chapter Summary

The outline of this chapter included the conclusion that build-up in relation to the research objectives. The summary of research objective 1 indicated that members of medical schemes proved to hold a good level knowledge for terminology that is significant to a medical scheme, such as co-payments, prescribed minimum benefits and designated service providers. The members are also conscious of scheme rules relating to waiting periods and termination of their membership. These results were good for the purposes of the study because if an individual is a member of medical scheme, it is important for a person to have some of the commonly used terms. Furthermore, the results for key features such as benefit options, contribution rebates, dual membership and scheme penalties, indicated that the level of information provided at the point of enrolment is not sufficient to help the members to answer questions to relating to such. Scheme rules and penalties, are important to the information that the member must know because this will prevent the member from taking decisions, that will lead contravention of scheme rules and leading to penalties. The responses relating to members being able to identify opportunities

suspected of fraud indicated that members have an idea of constituents of fraudulent activities. There absence of relationship between the variable was explained. Recommendations were made in relation to the variables of the study. The limitations of the study were presented and recommendations for future recommendations were formulated.

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Appendix A: Ethical Clearance

Appendix B Participant Informed Consent Form



**UNIVERSITY OF
KWAZULU-NATAL**

Participant Informed Consent Form

I _____, have been informed about the purpose of the study title, the relationship between the level of knowledge and opportunities of fraudulent activities amongst members of the medical scheme industry.

I understand the purpose and procedures of the study is to provide continuous improvement by making sure members of medical schemes are constantly getting enough information they need in order to understand the functions of their medical schemes and enable them to make knowledgeable, educated decisions about the product they purchased.

I have been given the opportunity to answer questions about the study and have responded to my satisfaction.

I declare that my participation in the study is entirely voluntary and that I may withdraw at any time without incriminating myself.

If I have any further questions, concerns, queries related to the study I understand that I can contact the researcher by email: summercreation0906@gmail.com.

If I have any questions or concerns about my rights as a study participant or if I am concerned about any aspect of the study, I will contact the researcher on 083 651 5934 or the Humanities & Social Sciences Research Ethics Administration

Signature of Participant

Date

Appendix C: Questionnaire

THE EFFECT OF MEDICAL SCHEME ILLITERACY OF SCHEME MEMBERS AND HEALTH INSURANCE FRAUD IN THE HEALTHCARE SECTOR

A Survey for Medical Scheme Members

The participants need to mark the appropriate block with an **X** when answering the questions below.

Section A: About Yourself

1. Title

Mr.	
Miss	
Mrs.	
Dry	
Prof	

2. Gender Type

Male	
Female	

3. Age Group

20- 30	
31- 40	
41- 50	
51- 60	
+70	

4. Marital Status

Single	
Married	
Divorced	
Widowed	

5. Employment Status

Employed	
Self- Employed	
Unemployed	
Retired	

1. What is a Co-payment?

- A co-payment is a monthly contribution paid to the medical scheme.
- Is a shortfall payable by the member at the point of service?
- Is the money paid to me by the medical scheme before I join the medical scheme?

2. What is a benefit option?

- It is the benefit amount that I have the option of choosing from my product plan.
- It is the option of benefits that I have available to me.
- A benefit option is the similar to benefit plan.
- A benefit option can either be Comprehensive, Traditional or Hospital; it all depends on the affordability of the member enrolling.

3. How will I know which benefit option is best suited for my healthcare needs?

- I can choose according to my healthcare needs and affordability.
- I can choose according to the information provided to me by the medical scheme
- I can choose a benefit option according to the scheme rules, which allows me to make informed decision.
- Prescribed Minimum Benefits must be included with every benefit option.

4. Can a person belong to more than one medical scheme at a time?

- Yes, as long as the person can afford to pay contributions to the two medical scheme companies.
- Yes, this can allow the member to access to more funds and a greater pool benefits available to them.

- No, according to the medical scheme act 131 of 1998, a person can be enrolled to one medical scheme at a time.
- No, this is illegal.

5. Is it compulsory for my employer to subsidize my monthly contributions?

- Yes, if medical scheme subsidization forms part of the employment agreement
- Yes, if it is according to conditions of employment.
- No, if subsidization does not form part of the employment agreement
- No, if it is not prescribed according to conditions of employment, labor law cannot intervene.

6. If I don't use all my funds in claims, will I be entitled to a rebate?

- Yes, if you have not used up all funds to claims, you can receive a payment for the remaining balance.
- Yes, the remaining balance on the medical savings account can be carried over to the consecutive year.
- No, medical schemes act 131 of 1998 prohibits any form of rebates or re-funding to members of benefits unless it is from the medical savings account.
- Yes, unused claims can be paid out in cash if the member has terminated their membership

Section C: Minimum Benefits, Waiting Periods, Late Joiner Penalties

1. What are Prescribed Minimum Benefits (PMBs)?

- It is a compulsory benefit that medical schemes must make available to its members.
- The doctor can diagnose the sickness, so I can get the benefit.
- Prescribed Minimum Benefits consist of about 270 chronic diseases
- Prescribed Minimum Benefits are benefits that included diagnosis of chronic diseases, treatment and full payment of healthcare services received.

2. What is a Designated Service Provider (DSP)?

- It is a designer that provides a service to me
- A network of healthcare professionals, prescribed to me by the medical scheme
- Is the preferred healthcare provider chosen for me by the medical scheme, who will provide a service at the negotiated rate with the medical scheme

3. What are the types of Waiting Periods?

- There are at least 7 types of waiting periods according to what you are waiting for.
- There is General and a Condition-specific waiting period.
- General waiting, where a member may have to wait for period of 90 days before being approved membership.
- Condition-specific waiting period can be imposed for up to 12 months.

4. What is a late joiner penalty?

- A Late Joiners penalty is imposed on the main applicant or dependent, who at the date of the application being processed is 35 years or older and has never been member of a medical scheme.
- It is the penalty imposed to the main member for submitting their enrolment form late.
- The penalty imposed by the medical scheme for joining the scheme late and not at the beginning of the year.
- Late joiner penalties do not exist.

5. Where can I complain if my claim was not paid on time or when I am dissatisfied with a decision taken by scheme?

- A member must first make a call to the designated customer complaints line.
- A member can write a letter or email addressed to the Scheme complaints department
- A member can complain with the Council of medical Scheme, if the member's complaint has not been entertained by the scheme
- A member can complain on social media, to steer a nationwide reaction.

6. When may my scheme terminate or suspend my membership?

- When the scheme contributions have not been paid
- When the contributions have not been paid on a pay-as-go system
- When the member has been found guilty of fraudulent misconduct
- When the member has been found to be in breach of the medical scheme rules.

Section D: Fraud in the Medical Scheme Industry

1. What is misconduct to the medical scheme?

- It is an activity that is not aligned with the scheme rules.
- It is the presentation of false or misleading information.
- It is intentionally hiding relevant information from the scheme.
- It is performing activity for your own individual gain.

2. What is medical aid fraud?

- It is a white collar crime that is cultivated by health practitioners in a majority of the health sectors and those practitioners that work independently
- Frauds a menace that eats away at the core of the moral vision of medicine
- Is the deliberate and illegitimate diversion of resources for the individuals own interests
- It is a menace to society

3. Which of the scenarios is fraudulent activity to the medical scheme?

- Duplicating a claim
- The doctor or pharmacist claiming for a service that was never rendered
- Allowing the pharmacist for claim for all the funds before the year is over
- Allowing a person not enrolled as dependent of the main member to utilize the funds

4. Which of the following would not be considered as fraudulent activity to the medical scheme?

- A healthcare choosing the best treatment plan for the member
- The healthcare provider insisting that the member use trademarked medicines instead of generic medicines
- The scheme advising the member to use a designated service provider

- The doctor manipulating the ICD10 so that the scheme will pay for the claimed service.

5. Which of the following are healthcare cost drivers? (You can choose more than one answer)

- Inflation
- Fraud and corruption at healthcare level.
- Increased costs of Hospital and Doctors fees
- Increased cost of pharmaceutical medicines and devices

6. How can a member suspecting of a fraudulent activity alert the scheme

- The member can make an anonymous call to the scheme fraud hotline
- The member can keep a record of the date, place and who was involved in the fraudulent
- The member can ran away from the scene
- The member can scream for help

Thank you for your participating

Appendix C: Turntin Report