**Assessing the need for management and leadership training in dentistry in South Africa**

by

Michelle Olubunmi Tukuru

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**Supervisor:** Dr S. E. van der Berg-Cloete

**Co-supervisor:** Prof T.C. Postma

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**Executive Summary**

The main aim of this study was to assess the need for management and leadership training in dentistry in South Africa (SA). The study also explored stakeholders' opinion about the most important non-clinical skills to teach dental students and how management and leadership training could best be developed and implemented in dentistry in SA.

The design of the study was a qualitative research to understand the participants' perceptions of leadership and management training. The sample included fourteen senior managers in the dental environment as well as eleven recently qualified dentists in South Africa. One-on-one and telephonic interviews were conducted. Interviews were recorded and data were entered into a Word document and analysed. All ethical requirements were addressed. The study was voluntary and participants signed a consent form to participate in the research.

The key findings of the study confirmed that participants were negative about dentistry in SA and agreed that strong leadership was necessary. Management and leadership training in dentistry in SA was therefore seen as utmost important. Participants also agreed that the training should start in the undergraduate level and follow through to the postgraduate level.

The results of this study provides valuable information about the need for management and leadership training in dentistry and how it best could be delivered in the South African context.

**Keywords**

Leadership; Management; Leadership training and development; Non-clinical skills; Medical Leadership Competency Framework

# Declaration

**Declaration**

I, Michelle Tukuru, student number 15391419 hereby declare that this dissertation, "*Assessing the need for management and leadership training in dentistry in South Africa,*" is submitted in accordance with the requirements for the Masters in General Dentistry degree at the University of Pretoria, is my own original work and has not previously been submitted to any other institution of higher learning. All sources cited or quoted in this research paper are indicated and acknowledged with a comprehensive list of references..

Tukuru MO

4/12/17

Date

## Dedication

It has been an amazing journey all through, where the Almighty God has always been my Shepherd. “We can do all things through Christ who strengthens us” (Phil 4:13).

I dedicate this dissertation to my parents (Prof) Michael and Patricia Kehinde whose love, prayers and support have brought me thus far.

To Michael, my husband who was ever there to support and encourage me when I needed the assistance.

## Acknowledgements

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A big thank you to all the participants, for their willingness to be part of the study, their time and valuable contribution, without which I could not have reached this goal.

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Finally, my deepest appreciation to Anjola, Irede, Ini and Ise, my children, who had to bear with me through this journey. Someday, they are all going to be distinguished leaders. I am very blessed to be their mother.

## List of abbreviations

| | |
|---|---|
| CanMEDS | Canadian Medical Education Directions for Specialists |
| CPD | Continuous Professional Development |
| DDS/MBA | Doctor of Dental Surgery/Masters of Business Administration |
| DDS/MPH | Doctor of Dental Surgery/Masters of Public Health |
| DPA | Dental Professional Association |
| DPM | Dental Practice Management |
| GDC | General Dental Council |
| HPCSA | Health Professions Council of South Africa |
| MBL | Master's in Business Leadership |
| MLCF | Medical Leadership Competency Framework |
| NDoH | National Department of Health |
| PHS | Public Healthcare System |
| PRHS | Private Healthcare System |
| RCPSC | Royal College of Physicians and Surgeons of Canada |
| SA | South Africa |
| SADA | South African Dental Association |
| SAMHS | South African Military Health Services |
| SM | Senior Managers (Participants) |
| SPDL | Scholars Program in Dental Leadership |
| UK | United Kingdom |
| USA | United States of America |
| YD | Young Dentists (Participants) |
| YDC | Young Dentist Council |

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# CHAPTER 1 GENERAL ORIENTATION

## 1.1 Introduction

Leadership has been recognised as an invaluable professional competency for dentists to acquire. The way in which, and to what extent leadership skills should be developed remains largely undefined.[1] All over the world today, there has been an extensive and quick growth in social culture, economic processes and usage. In light of this, the face of dentistry has changed with so many new challenges. There is an opportunity to proactively manage the looming crises by adopting a system of innovative changes and instituting a framework of leadership and management in dentistry.[2]

The dental profession in South Africa is indeed facing rapid changes as well.[3] A decrease in third party funding, changes in governmental policy making, political reforms, globalisation, consumerism, changes in disease profiles and economic recession, all contribute to uncertainties in the market. These trends affect the state of the dental practice within the country today.[4] Furthermore, the public health sector experiences constant resource constraints that affect access to healthcare and the quality of service delivery.[5] All these external factors affect the dental profession in such a way that dental professionals have to utilise leadership skills constantly to perform optimally: whether by motivating and influencing patient behaviour, guiding staff of the dental practice environment, training younger upcoming dental professionals or by taking responsibility for the oral health needs of the society.[6] Aljadeff[6] stated that higher priority should therefore be given to develop leadership skills in dental students.[6] Integrating a formal leadership framework structure from the start of the undergraduate curriculum should inculcate a sense of leadership as from early career building.[6] It goes without saying that dentists face constant provocation as they are unavoidably involved in business, leadership roles and management obligations[7] and therefore need to be equipped with leadership and management skills. Improved leadership and management competencies amongst dental professionals would result in strengthening the dental profession in clinical and non-clinical activities, providing clinician led and patient-oriented services.[7]

Literature indicates that the input from dental students, on what their views are in obtaining leadership skills, is imperative to inform their learning.[8] Patel *et al*[9] stated that dentists in private dental practice support the notion of developing leadership skills in dental students since the lack of these skills are recognised as a huge challenge in practice.[9] With SA facing many healthcare challenges, leadership skills development would help to improve healthcare outcomes as health professionals will work together for the benefit of the South African population.[10]

### 1.2 Problem statement and rationale for study

Due to the changing dental environment in SA, the profession needs to be positioned in such a way that it can make meaningful contribution to the country and its people. To do this successfully, strong leadership is needed and therefore management and leadership skills should be included in their professional training. This is crucial for dentists to be successful in responding to these changing environments.[11] A recent study by Vander Berg-Cloete *et al.* accounted for students' opinion of the most important non-clinical skills, other than their clinical skills, needed by dentists when they qualify. This study proved that students at undergraduate level are more focused on non-clinical skills related to clinical care and not necessarily towards managing services. The need and stronger emphasis on leadership and management training in dental schools in SA, was confirmed by this study.[12] Only the viewpoint of students, on the need for leadership and management training, was taken into account in this study. However, key stakeholders' opinion, in the dental environment, about the need for management and leadership training in dentistry has unfortunately not been researched in a South African context yet.

### 1.3 Aims and objectives of the research

The aim of the study was to assess key stakeholders' opinion about management and leadership development in Dentistry within South Africa.

Objectives:

- To assess key stakeholders' opinion about the need for management and leadership training in dentistry in South Africa
- To assess the most important non-clinical skills to teach dental students

- To assess key stakeholders' opinion about how management and leadership training could be developed and implemented in dentistry in South Africa.

# CHAPTER 2 LITERATURE REVIEW

## 2.1 Introduction

Leadership affects the success or failure of any organisation.[13] Management and leadership skills amongst health professionals is required in recent times, for overall advancement in service delivery and administration of health facilities, thus leading to improved health outcomes.[14] Globalisation, consumerism, increasing input costs, pressure from third party funders to reduce cost and a global decline in dental caries prevalence have changed the face of dentistry during the past decades.[15]

This chapter gives a review of the literature that presents the most conclusive evidence in relation to the research problem.

## 2.2 Leadership and management

### 2.2.1 Leadership

Leadership has many definitions, but the most common definition has arisen from traits that leaders possess which consists of integrity, self-confidence, intellect, perseverance and dominance amongst others.[16] A leader is that person who is willing to take up the responsibility to make an improvement and can be broadly defined as the capacity to inspire and influence others towards a shared vision.[17]

A question that many people ask is, “what makes a good leader stand out or make a distinction from others”? A perspective lies on the basis that certain traits are discovered within these individuals. These characteristics attest to how leadership is rooted from within these individuals. Another perspective is based on how circumstances or events can transform an individual into a leader who may not ordinarily be a leader in other circumstances.[18]

Gilley[19] and other authors quoted the following essential leadership skills required for a leader to function optimally in a changing environment:

**1. Coaching**

The ability to coach, inspire, stimulate and assist employees to try to be their best by improving on their ability and strength. This in turn positively influences the quality of work output in the organisation.[20] It creates a forum where employees can question and seek different approaches to situations, improving collaboration and results. Research reveals that coaching further establishes better communication between leaders and employees and enables leaders to better serve their employees.[20]

**2. Communication**

Communication is distinguished as a commendable leadership skill to possess. A leader utilises a varied set of communication skills to convey the right message across and to receive feedback while inspiring others to change and work together for a common good.[21]

**3. Reward**

The ability of a leader to compensate and reward (financial incentives) their workers based on their performance, has been seen to lead to better outcomes as workers respond more favourably.[22] Hence change and innovation within the working environment is only further encouraged enhancing anticipated outcomes. It should be flexible enough to accommodate evaluation and modification from time to time according to the change initiatives of the organisation.[23]

**4. Motivation**

The ability to influence a worker is dependent on the motivation level of the worker and the skills of the leader. [24] It also requires a skill whereby an environment is created for easy and open communication between employees and the leader. An environment that fosters workers who are free to be able to address their queries and innovate.[24]

**5. Teamwork**

The manner in which a leader constitutes its employees into work groups or teams while being able to manage them is vital to accomplishing the aims and vision of the organisation. A skilled leader can structure these teams such that there is a blend of diverse and interpersonal skills amongst workers of different backgrounds. This will enable interaction amongst each other, encouraging cooperation and reaching a desired goal by being able to challenge one another productively.[25]

### 2.2.2 Management

A manager can be defined as one who directs the activities of an individual or a group of people to realise shared goals. Through developing, giving direction, checking and assessing these individuals. They are responsible for the day-to-day running of an organisation.[26]

### 2.2.3 Differences between management and leadership roles

It is crucial to make a well-defined distinction between both management and leadership as they are often used interchangeably. Both concepts though having different qualities also overlap with recognised similar attributes. It is challenging to have one without the other hence it can be difficult to do either one or the other efficiently.[27] The differences between leadership and management are highlighted in Table 1 below.

**Table 1: Differences between management and leadership roles**

| **Management role** | **Leadership role** |
|---|---|
| Develops and maintains power relationships with the team | Influences and develops relationships with the team |
| The manager oversees. | The leader transforms. |
| The manager is responsible for providing services and goods | The leader creates noticeable modifications in the workplace |
| Coordinates activities amongst the team for production. | Ensure shared purposes of the team |
| Strategic vision achieved through focus on structures and systems | Strategic vision achieved through focus on people |
| Relationship: managers and subordinates. | Relationship: leaders and followers. |

(Source: Modified from Jones[28]).

According to Jones,[28] both managers and leaders work towards achieving strategic goals. Management involves the directing and controlling of both the human (subordinates) and non-human resources, according to already established values, standards and guidelines of the organisation. Leadership focuses on having a vision and directing others towards

shared goals. Managers have a more formal authoritative association to their subordinates while leaders motivate and influence others by their ability to think strategically, with a broader consideration of the health and social concerns. As far as dentistry is concerned, this includes the ability to work with and through others to achieve the kind of healthcare that is being aspired within the domain of a dental practice.[29]

### 2.3 Leadership and management in the South African healthcare system

South Africa is a middle-income country of greater than 55 million population with considerable disparities in their economic and societal circumstance. [5] This stemmed from over four decades of apartheid.[30] Inequalities are seen especially amongst the underprivileged black South Africans who still have a high rate of unemployment[31] influencing the delivery of healthcare tremendously. The Public Health System is responsible for the healthcare of about 80% of the population alongside the Private Health System, which serves about 20% of people who can afford the cost of private healthcare.[32]

#### 2.3.1 The Public Healthcare System (PHS)

The PHS in SA is a fairly well founded healthcare system albeit not without problems. With the history of SA, the ongoing health challenges are cultivated by interracial differences, gender discrimination, excessive violence, socioeconomic inequalities and a system of foreign labour, amongst other issues[30]. All have contributed to challenges in healthcare and its delivery within the nation. To add to the challenge, the PHS struggles with considerable resource constraints,[30] and an increased demand for care in recent times has placed a further burden on the PHS. It has been argued, that the PHS requires a significant overhaul to combat the challenges.[33]

Despite good policies being in place, management and leadership constraints have contributed to the ineffective implementation of the healthcare system. Health inequalities are unfortunately not sufficiently attended to, as this contributes to the total well-being of the population in SA.[34] Gilson and Daire [35] in 2011 argued that SA direly needs leaders and managers in positions of responsibility amongst professional health workers who can motivate for transformation and implement policies to improve healthcare service delivery in SA.[35]

Due to many challenges that the South African PHS is facing including epidemics such as HIV/AIDS and tuberculosis,[36] the need for change is non-negotiable in the SA health system. With an increase in the complexity of health transition in over two decades, this has led to changes of focus in the health programs from the ministry of health in South Africa.[37] Needless to say, with the overwhelming undertaking of these diseases, dentistry is close to an insignificant part of the system and is often seen as an expensive luxury. The bulk of the dental services rendered are mainly the relief of pain and sepsis, despite a huge demand for more advanced treatment at state institutions.[38] More advanced treatment is however more readily available at cost in the Private Sector.

### 2.3.2 The Private Healthcare System (PRHS)

The private health facilities are well resourced as it is funded mainly by medical scheme patients who constitute 20% of the South African population. Out of pocket expenditure is also rife which is unfortunately mainly afforded by this minority of the population.[32] The private sector relies on its clients being in formal employment for funding.[39]

Due to the limited number of posts and challenging working conditions in the PHS, many dentists and specialists end up gravitating towards the private sector, which caters for the minority of the population.[40] The PRHS has about 70% of the qualified dentists of SA in its employment and serves the 20% of the South African population. Guaranteed payments in the PRHS is a great motivation for dentists and these include out of pocket and medical aid payments, where access to medical aid determines treatment range and amount as well as frequency.[41,42]

The South African Government has realised this disparity between the PHS & the PRHS and hence the directive towards the implementation of a National Health Insurance System.[43]

### 2.3.3 The National Health Insurance (NHI)

The NHI is a scheme that acts as a universal coverage for healthcare. It serves to improve on health by providing access to reasonable and affordable preventative, curative and rehabilitative health interventions. This is aimed at achieving the goal in the South African constitution that all South African citizens have a right of access to health services.[44]

The NHI, still in the process of being implemented in SA, aims to bridge the gap of inequalities (resulting since apartheid) by addressing the healthcare needs of every South African equitably, despite their socioeconomic status. Thus making certain that every single citizen will have a right to quality and affordable healthcare delivery.[45] This improved access to healthcare aims to tackle the key challenges affecting the healthcare in SA i.e. the quadruple burden of disease which are HIV/AIDS and TB, high maternal and child mortality, violence and injuries and non-communicable diseases (NCDs).[46] There have been numerous missed chances for timely prevention of disease as a consequence of inequity in access to healthcare.[47]

The current state of the public sector facilities and workforce as well as financing are still however concerns surrounding the implementation of the NHI.[48] Other concerns include possible emigration of medical expertise and pharmaceutical companies[49] as well as marked disparities in the distribution of human resources between the public and private health sector, rural and urban areas and amongst provinces.[50] The public sector has an enormous workforce challenge since the majority of health workers are found in the private sector.[51] This Universal coverage scheme is meant to overcome these disparities in terms of equal access to the same healthcare facilities to create equity amongst those attended to by both the private and public sectors and also those who reside in urban and rural locations.[52]The main concern of funding the NHI, is around the fact that SA has a small tax base to support the NHI Scheme i.e. over 13 million registered income tax payers in a population of over 50 million people in SA.[53] The standards of the PHS facilities and working conditions are more -factors that need attention for an NHI to be successful. Government is looking at human resource training, increase in workforce, physical infrastructure, increase in medical supplies, elevated costs and inefficiencies to address these concerns. The health system should adopt the single payer system, combining both the public and private health sectors into one healthcare system under a universal coverage. This will ease the burden of the

millions of individuals who are struggling financially due to of out of pocket payments for good healthcare.[54] Experiences are shared from other countries where studies have debated that a National Health Insurance Scheme would help to alleviate these problems by increasing health service utilisation.[55,56]

Oral health within the NHI system has unfortunately not yet thoroughly been analysed and costed and received a back seat with the initial discussions of the NHI. Strong leadership will be required to ensure the success of this NHI and especially in oral health to ensure that the profession receives equal importance in the NHI.

### 2.3.4 Conclusion

Introspection and strategic thinking focused on renewing outdated business models and leadership skills will be required to position oral health correctly within the South African Healthcare System and the NHI in particular. Equipping graduates with leadership and management skills will be of the utmost importance to ensure success.

## 2.4 The need for management and leadership development in dentistry

A good leader inspires and influences people while directing both the financial and human resources towards a shared objective. This would largely involve, implementing, improving and maintaining a vision within the organisation through effective communication and well-considered steps.[57] In dentistry, the capacity to inspire and influence others towards achieving set aims and objectives, would translate to the movement of society in the direction of optimal oral and systemic health.[57] Sustaining the dental profession in a rapidly changing environment will however require the development of appropriate skills to guide the healthcare system to function at a more advanced level. Appropriate skills may include continuous personal growth, networking skills as well as business and strategic management skills.[58,59]

Dental professionals continuously take on leadership roles at their workplace.[60] These roles could manifest either through the motivation of patients, influencing patient behaviour, understanding team dynamics, managing staff, training of upcoming professionals, addressing oral health disparities, or by taking responsibility for the oral health needs of the

society.[6] A leader in dentistry is required to be able to visualise and forecast the future alongside rearranging resources, while observing developments with the use of recent technology to achieve optimum oral healthcare for all.[61]

A significant change in oral health is that a recognised and increasing link between oral infections and systemic diseases has been established. Evidence reveals that patients who were at risk of certain systemic disease have been discovered through dental visits. Consequently, this has created more opportunities for oral health professionals to impact on the general health of their patients.[62-64] The function and duties of oral health professionals on the general health and wellbeing of patients is on the rise as there are so many current developments including the emergence of new health reforms, opposing the traditional model and scope of dental practice.[65] This is just one example of a changing oral health environment resulting in the need for recruitment of professionals who have the appropriate leadership and management qualifications to lead professional organisations.[66]

Studies have shown that several competency frameworks developed by different professional bodies, emphasise leadership training. The Medical Leadership Competency Framework (MLCF) is one such model.[67,68] Dental practices are businesses,[69] which in many instances involve a multi-dynamical mix of dental professionals and team members working together within a complex environment to deliver quality dental care to the benefit of the society. The advances of quality care are matched with the business of running a dental practice.[70] Inevitably, the responsibility of leadership lies on the dentist who is most of the time inadequately equipped with formal business skills.[71] Universities have a challenge to produce graduates that are appropriately skilled to optimally manage a dental practice after graduation. Consequently some studies have proposed that perhaps business models should be incorporated earlier into undergraduate curricula as well as through continued postgraduate learning.[71] In response to equipping dentists with the required leadership skills, prominent dental schools in the United States of America (Colombia University Health Sciences School of Dental and Oral Surgery and Harvard School of Dental Medicine) offer dual postgraduate degree programs to students. The dual programmes include dual degrees in DDS/MBA or DDS/MPH and DMD/MBA, respectively.[71]

At some of the dental schools in SA, Dental Practice Management (DPM) is a course included in the undergraduate dental curriculum to teach management and leadership

competencies.[72] DPM is a course to develop students' leadership, management, communication and marketing skills.[72] In Europe, the General Dental Council also placed more emphasis on training in leadership knowledge and skills in the dental profession.[73,74] It is evident that the training of leadership and management should be incorporated fully into the dental curriculum for it to have a greater impact.[75]

Although dental professionals can be successfully trained in leadership knowledge and skills,[76] most dental schools have not incorporated the necessary leadership skills adequately to prepare dental professionals to be able to perform in leadership roles.[77,78] Studies have confirmed that a health professional who wishes to thrive in the future has to be proficient in a wider base of non-clinical competencies such as leadership and management together with their clinical skills.[79,80]

### 2.5 Leadership and management training models for health professionals

#### 2.5.1 CanMEDS

In the past, the education for health professionals in the health sciences was based solely on the current trends in diagnosis and treatment. In recent times, medical education is based on taking accountability for and upon the needs of the society. The balance between further advancement of patient care and the resulting outcomes of its learning enterprise is of utmost importance. In view of global challenges with increase in patient consumerism, advanced technology and disheartening litigation, a rising demand for more accountability and professionalism amongst medical professionals occurs. Hence, the motivation towards introducing the outcomes based learning approach in the medical field geared in the direction of reaching the required results. The Royal College of Physicians and Surgeons of Canada (RCPSC) developed the CanMEDS. This initiative is an outcomes adapted competency framework, which centers on the healthcare needs of the society and how the medical practitioners can best be trained to meet these needs.[81]

The CanMEDS framework[82] include the following competencies:

1. **Medical expert**: this central component is where the physicians operate at optimal level as clinicians. The combination of knowledge, skills and professional attitudes, equip them on when to use preventative measures and to demonstrate professional use of

diagnostic and therapeutic skills. The medical expert is also aware of limitation, when to consult and refer as appropriate.

2. **Communicator**: the ability to cultivate trust through building a relationship whereby the physician can gain significant information from the patients while empathising with them. With this skill, good oral and written explanations can be provided to work towards a common goal, which is building a shared plan of care.
3. **Collaborator:** the professionals work together with other members of the healthcare team towards the continued unison of the profession.
4. **Manager:** being a manager entails efficiently combining non-clinical skills such as leadership and administrative to assist in running the health organisations systems.
5. **Health advocate:** physicians support the general health and wellbeing of both the society and its health professionals through professional knowledge and guidance.
6. **Scholar:** continued learning and how this learning affects and improves themselves as well as their patients and communities**.**
7. **Professional:** the physicians are expected to exhibit a high moral standard of behaviour towards individuals at all times, guided by their ethical training and regulations of the profession. This shows a commitment to patients, the society and the profession.

This initiative of the CanMEDS provided by the RCPSC, has been broadly dispersed and implemented worldwide through a multidimensional mode of adoption. This approach of modifying the medical curriculum to a competency based one, is adopted through instituting workshops to train and develop medical instructors, the publication of CanMEDS resources, and CanMEDS oriented research. These are being sustained through support, newsletters and partnerships.[81]

Challenges experienced by the CanMEDS adoption include resistance to the new standard of medical education and then more importantly, shortage of resources including financial and human resources. This has resulted in the need of deliberate change management strategies. The most important lesson to learn is that medical learning and training must be multifaceted, and in order for the physician to be totally responsive to the needs of the society, this learning must fully integrate capabilities beyond just being the medical expert.[81]

### 2.5.2 Medical Leadership Competency Framework (MLCF)

Studies show that qualified dentists all over the world engage in non-clinical activities when they gain employment into the labour market. These non-clinical activities include managing services and working with others all within the dental environment.[85] The National Health Insurance System in the United Kingdom recently developed the Medical Leadership Competency Framework (MLCF) to guide the development of leadership skills in the health profession.[67] Table 2 shows the five competency domains and the 20 elements .

**Table 2: MLCF Domains and Elements**

| Domain | Elements |
|---|---|
| Demonstrating personal qualities | Developing self-awareness<br>Managing yourself<br>Continuing personal development<br>Acting with integrity |
| Working with others | Developing networks<br>Building and maintaining relationships<br>Encouraging contribution<br>Working within teams |
| Managing services | Planning<br>Managing resources<br>Managing people<br>Managing performance |
| Improving services | Ensuring patient safety<br>Critically evaluating<br>Encouraging improvement and innovation<br>Facilitating transformation |
| Setting direction | Identifying the contexts for change<br>Applying knowledge and evidence<br>Making decisions<br>Evaluating impact |

Source: Clark J, Armit K.[67]

The MLCF's five domains with its 20 elements can be interpreted as follows:

1. **Demonstrating personal qualities:** these include self-awareness, self-management, continuing personal development and integrity, which form the foundation of leadership. These skills enable the leader to appropriately engage with other people through the maintenance of relationships, the formation of networks and the encouragement of contribution and teamwork. It also forms the basis of management in general.[67]
2. **Working with others:** The ability to work with others is also a crucial skill to have as a proactive leader. *Others* in the context of dentistry include staff in the practice, patients as well as external stakeholders such as traders. It entails maintaining a partnership with members of the team in ensuring good delivery of care. An able leader should provide an atmosphere of opportunity whereby relationships are created and sustained through support, trust and appreciation.[67]
3. **Managing services**: In managing and improving services, an effective leader concentrates on the successes of the practice by executing the vision of the organisation. The effective leader is able to understand, plan and work with available resources while taking the welfare of the patients into consideration. In addition, utilise the skills of team members and encouraging them to grow.[67]
4. **Improving services:** An able leader improves services by taking responsibility for their decisions and actions. In creating an atmosphere that nurtures continuous progress in service, a leader can identify and confront difficult issues. In this way, the leader will be alert to how and where services can be improved by means of obtaining and working on patient and carer feedback and experiences.[67]
5. **Setting direction:** refers to the leader setting objectives for the future through implementing strategies and the goals of the practice, acting in a way that portrays its values. This may be done by deploying a skill mix of demonstrating a full understanding of the professional, financial, political and societal environment.[67]

The framework is a very helpful tool as it signifies the basis of leadership behaviour while it also offers a steady means towards how leadership behaviour can best be attained by all healthcare workers. It is suggested that these non-clinical skills be developed over time, during undergraduate and post-graduate study, more or less in the sequence as illustrated by the MLCF domains.

When relating it to the context of private practice and the NHI, the MLCF is being assessed as being oversimplified and ambiguous with the concept of leadership and competencies. However the need for acquiring leadership skills outweighs this ambiguity and rather reveals room for adaptation.[84]

A study on South African dental students' perceptions of most important non-clinical skills according to the MLCF showed similar concepts found to be overlapping in more than one domain during the data analysis.[12] This study adapted the original MLCF in order to dispel these ambiguities and highlight the overlaps, which occur between domains (Fig 1). The domain interfaces include the following:

- Domain A and B with interface *'ability to build and maintain relationships* (codeA1B2)
- Domain B and domain C with interface, *'managing people'* (Code C3).
- While domain D and domain E with interface 'Encouraging *innovation linked to identifying contexts for change'* (Code D3E1). All these are shown in Figure 1 below[12]

Dental students' training has always placed emphasis on the development of clinical skills in the undergraduate curriculum compared to non-clinical skills that relate to dental practice management.[85] Recent literature also suggests that more emphasis should be placed on the training of dental students to be leaders in their profession.[6,60] Despite these recommendations, there is little evidence in the literature that the development of leadership skills is officially being pursued in the dental curriculum in South Africa.

### 2.6 Leadership and management training and development in dentistry

There is a heightened awareness of the need for training of leadership and management skills generally amongst students studying in health sciences.[86] Dentists who are also practicing have begun to appreciate the need of these management skills as well.[87] This is due to the many considerable challenges and significant changes faced by the dental profession and its lack of active leadership which has led to a form of disenchantment within the profession. Ongoing changes and occurrences are shifting the dynamics, influencing transformation and redefining the scope of practice in the dental environment. These are also seen to modify the interactions between dentists and other professionals both within the same and within other fields, between dentists and their patients and associated stakeholders. Some of these include changing disease patterns, a change in type of dental

services demanded for, electronic health records and databases and the ability for those who utilise dental services to retrieve and evaluate health information for themselves.[88]

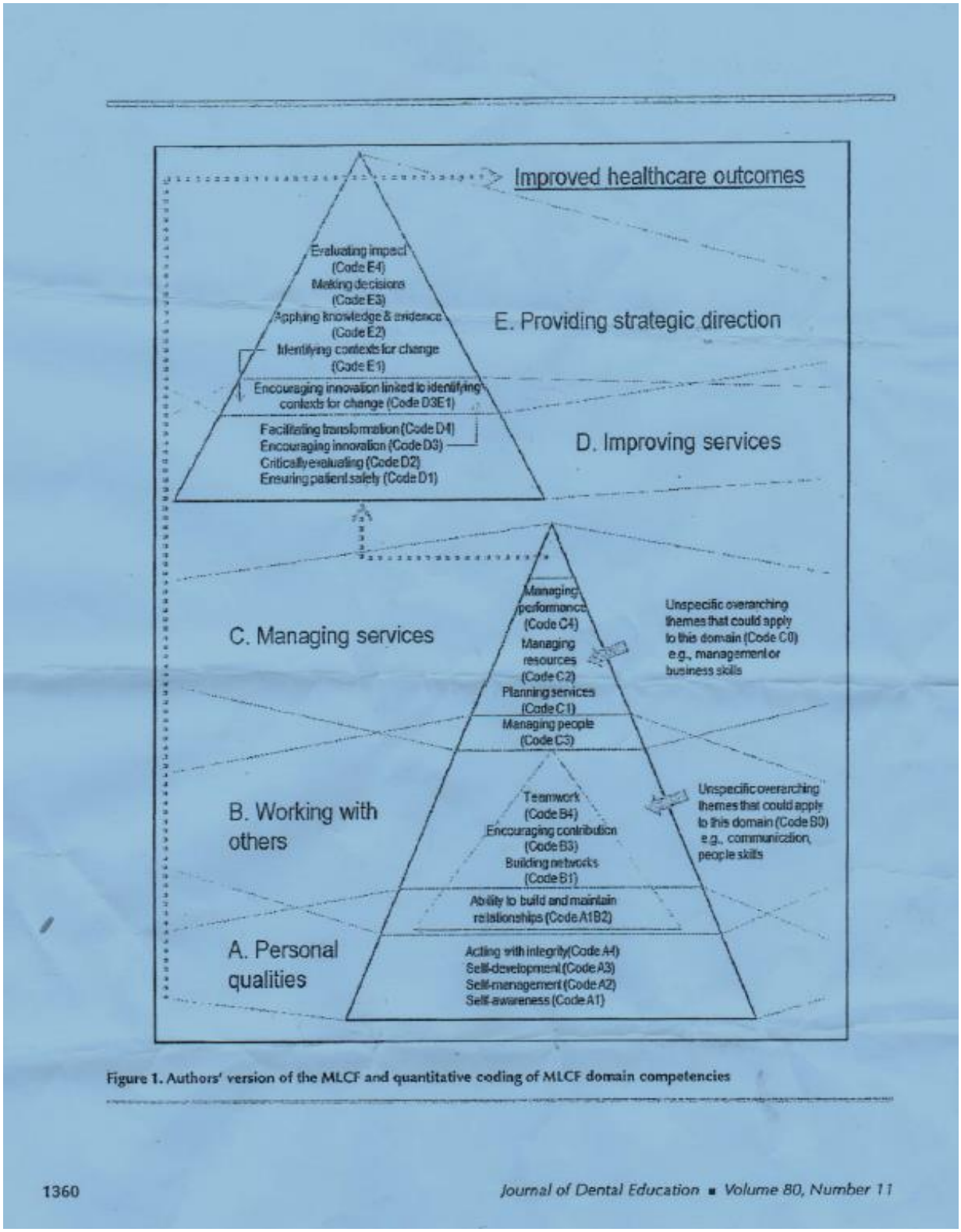


**Figure 1. Adapted MLCF [12]**

(Source: Van der Berg-Cloete *et al*, 2016, p.1358)

Other changes include a change in insurance cover and the emergence of other oral health professionals such as dental therapists.[89] These changes and challenges are all due to modern technology, which has helped to facilitate the collection and organisation of data as well as access to enlightening information in research. All these factors affect how the society views general health and how oral and systemic wellbeing is perceived. This has ultimately altered the relationship between oral healthcare professionals, their colleagues, dental consumers and related stakeholders. Consequently, this should alter how dental students are trained at undergraduate level, nurturing within them the awareness of a leadership culture that effectively addresses both ongoing and future changes.[89]

This has compelled dentists to look inward into adopting a new vision and mission that involves carrying along the whole dental team.[90-93] Morison and McMullan in their study identified some challenges as the combination of reorganisation and restructuring of dental services with executing a new vision and direction for the profession. Dealing with the pressure of attending to patients daily, restructuring of services and managing how the public perceives the change as a challenge, is crucial to protect the reputation of the profession. Depletion of funds because of economic constraints was also identified as a possible challenge for dental leaders. Notwithstanding, the lack of opportunities for developing and nurturing new leaders in the dental profession has been a major challenge.[94]

Dental students are generally not taught to become proficient in non-clinical skills such as communication, critical thinking, decision-making skills, for casting and piloting a changing environment. Some attempts have been made to teach them about communication and teamwork but despite this, the programs have not always adequately equipped dental students for leadership.[94] Coltart *et al*. argued that never before has the integration of management and the health profession been so obvious.[95] Research has corroborated that it is now relevant that specific education, focusing on management and leadership in the dental field be presented to students in undergraduate level. Imparting this management and leadership training early in undergraduate level to dental students would have remarkable benefits.[75,95,96] Consequently, a relative lack of these leadership and management programs for dental undergraduates may possibly result in the students missing out on opportunities to nurture leaders of the future from the inception of their career.[97] Dental professionals, in their mid-career, usually, pursue some leadership development programs on their own. Education has certainly been highlighted to playing a vital part in developing leadership skills

and these skills should be core in the curriculum of health professionals.[98,99,100] It is however important to evaluate the readiness of students' willingness to participate in leadership training courses, developed and carried out by their training institution.[89,99]

It is affirmed that the necessity is much greater and it would be highly beneficial for dental schools to build up their own curriculum.[89] The leadership and management development culture is now fully embraced by health professions[75,79] where in the past, this development was more relevant amongst other professions.[68,101]

Leadership training is pursued in many health professional areas such as in nursing and medical schools as well. A leadership program was charted by Fruge *et al.* for fellows at the Texas Children's Hospital in the United States of America[102] where it was done in a case-based seminar style. The study proved significant enhancement in leadership skills of these participants. In another study, teamwork and leadership were integrated with clinical activities so that the skills gained can be utilised. The rationale behind this approach was that the leadership skills can be reinforced when applied clinically.[103] Leadership training has been proven to be vital, but the limitations or challenges include time constraints due to curriculum overload together with dental students not always seeing the relevance in undergraduate study.[3,85,104] The University of Michigan in the USA introduced a Scholars Program in Dental Leadership (SPDL). This program spans the entire four-year dental curriculum in such a way that it provides adequate time for learning but mostly after hours. As part of the SPDL program content, activities include creating projects that enhance leadership skills, leadership journal reviews and dialogues on how to move the profession forward while keeping key problems in view.[105]

A study revealed that societies that have challenges in health and socioeconomic factors are in dire need of a strong and proficient set of health workers. Therefore, a collective effort of health professional schools and departments is desirable to meet the health needs of the society.[106] For this to succeed, operational leaders amongst health workers are needed to move the profession in rendering the appropriate service delivery to the society to meet up with the changing health needs.[106] The UK dental profession recognising this changing dental environment, recently created the development and demonstration of management and leadership skills as a core domain within their General Dental Council (GDC) new curriculum framework document.[107] This core domain seen to be of crucial benefit was also

included in other curricula such as the dental foundation, specialist training and CPD requirements.[108-110] The promotion of the 'new professionalism' is contained in a number of key medical documents.[111-114] It upholds the importance of improvement in total quality care, autonomy and patient welfare, integrity and honesty, a fair circulation of limited resources, avoiding discrimination and encouraging equity in access. These arose due to the fact that medical professionals need to take ownership by defining the future characteristics of their profession by leading and advocating healthcare system reforms in addition to promoting high standards.[111] With careful study of a variety of factors, it can be acknowledged that management and leadership training is vital at all levels from undergraduate study to postgraduate level.[9,90]

## 2.7 Conclusion

There is a dearth of research regarding the need for leadership and change in the dental profession,[71,115,116] however, a lot more is being done in the USA than anywhere else.[117] In the UK, there has been a few published reports driving the need for leadership and management in the dental profession. These reports include high quality care for all and the NHS next stage review, which encourage the need for good clinical leadership.[118] The UK King's Fund is another initiative, which advocates for leadership and motivation in guiding the quality of patient care. This fund plays an important role in development of policies and effective practice through supporting human resources and organisations.[119] Proactive leaders are now seen to be instrumental in driving the dental profession ahead,[116] especially as leadership is a necessary skill for dentists to acquire since they inevitably end up leading their teams.[120]

This study originated given the lack of stakeholder opinion in SA about the need for the development of leadership and management skills in dentistry as well as the best mode of delivery in the dental curriculum. There are materialising prospects for dentists to change the overall state of their profession. The onus is on dental professionals to take the bull by the horn and fight for the opportunity to make choices that will influence the dental profession positively rather than have external influences determine the future of dentists as health professionals.

# CHAPTER 3 METHODOLOGY

## 3.1 Introduction

This chapter delivers a full account of the methodology, which was used to impart understanding to the research questions. It consists of the research design, description of the processes followed, survey instruments used and systemic planning of how the study was carried out.

## 3.2 Study design

This is a combination of a qualitative research study design with quantitative aspects to complement the findings. The study is explorative (as it seeks to explore the conscious views of the study participants as per their lived and shared experiences), descriptive (explaining the views expressed by them), contextual (pertaining to the oral health professionals/dentists) and holistic in nature. The descriptive aspect will be presented in summary statistics .

## 3.3 Study sampling

The selection of the participants for the study included two aspects namely selection of the senior managers and the selection of recently qualified dentist (will be referred to as young dentists in the study):

### 3.3.1 Sampling of senior managers in dentistry

The primary researcher purposively targeted 15 senior managers in the dental field to ensure a representative sample that would speak for the oral health profession. Stakeholders were identified according to their senior positions in the organisation related to oral health in SA.

The selection was done based on the virtue of their experience in dental services in SA. Their ability to provide valuable and strategic information together with exclusive knowledge

on oral health policies, management and leadership pertaining to oral health services in SA, was taken into account as part of the selection criteria.

The relatively small sample size was deemed sufficient because the aim was to clearly comprehend the views of key oral health experts and professionals in SA. Details of senior managers were gathered by means of Internet searches, referrals by academics from the University of Pretoria and other oral health professionals.

The following stakeholders were approached to participate in the study:

- Two senior managers from the South African Dental Association (SADA)
- Two senior managers from the Dental Professionals Association (DPA)
- Two senior managers from Public Health Services: National Department of Health (NDoH) and regional (Tshwane district)
- Two senior managers from group practices: Intercare and Medicross
- Two senior managers from the South African Military Health Services (SAMHS)
- Five dentists from private dental practices

### 3.3.2 Sampling of young dentists

The chairperson of the Young Dentists' Council (YDC) provided a list of young dentists (YD) registered with the YDC that could be contacted. There were 39 young dentists registered with the YDC. An e-mail was sent to the dentists to introduce the primary researcher and the study. The YDC is a group of dental practitioners under the age of 35 years and is affiliated to SADA. This council is responsible for confronting problems and finding solutions to ensure better working conditions and opportunities for the younger dentists in SA.

The researcher subsequently sent an e-mail to all the dentists included on the list with an invitation to participate in the study. The request was sent to all the 39 dentists in total. It was a challenge to sample enough dentists within five years post qualification from the YDC to share information. Of the 39 YDC dentists, only eleven YD consented to participate in the study.

### 3.4 Measurements (Instrumentation)

These stakeholders were all invited telephonically or a letter (Appendix 1a) was sent via email, to inform them about the research study. The letter contained the title of the research, the purpose of the study, the nature of the involvement of the participants and the expectations. Those who responded, and indicated interest to participate were provided with an informed consent form to complete (Appendix 1b).The informed consent forms were either sent by email or hand delivered. It contained all the information regarding the research study as well as the interview schedule. The questions for senior managers and young dentists were different. The questions included: views about dentistry in SA; important non-clinical skills to teach students; the need for management and leadership training in dentistry in SA; management and leadership training initiatives in SA; and how management and leadership training can best be delivered in SA. See Appendix 2a and 2b for the interview schedules of the senior managers and young dentists respectively.

The interview questions were designed to support the research objectives of the study. These questions were designed that the participants could start the interview with questions they can easily respond to and then move towards the more challenging questions. This enhanced an easier flow as the participants relaxed, developed ease, and gradually gained rapport and confidence as the interview progressed. Research has shown that this approach generates valuable and rich data.[121]

### 3.5 Data management and analysis

#### 3.5.1 Data management

The data was collected by means of semi-structured one-on-one interviews.[121] Semi-structured one-on-one interviews are quite common in qualitative research studies, to extricate rich expressions of textural data.[121] Interview scheduling and data collection commenced only when the informed consent document was understood, signed and returned to the primary researcher. Appointments were set up at a convenient date and time for the telephonic interviews to take place. They were conducted with participants who were willing and had consented to participate. The one-on-one interviews with the senior managers were scheduled on set dates, times and locations agreed upon. For most of the senior managers, the agreed location was a convenient time at their respective workplaces,

while other interviews where arranged at other convenient venues chosen by the participants. Interviews were conducted within a relaxed environment where the participants could share their honest opinions. The researcher ensured that all personal schedules were honoured. Dates and times were agreed on for the telephonic interviews with the young dentists as well.

The interviews were carried out by the researcher who was unknown to the participants . At the start of each one-on-one and telephonic interview, the participants were reminded that the interviews would be audio recorded and reassured of the confidentiality measures to be taken regarding safeguarding their identity during data analysis and storage. The audio recording ensured the researcher to pay close attention to the participants' responses and how they narrate their experiences fully, without needless interruptions. The researcher called for further explanation from the participants for clarification purposes during the interviews.

To ensure confidentiality, codes SM01 - SM15 were used as identifiers of the senior managers during the qualitative analysis. Of the 15 senior managers (SM) that were approached to participate in the study, 14 consented to participate in the study. Of the 39 young dentist that were approached, only eleven consented to participate. Codes YD01 - YD11 were used as identifiers of the YD during the ensuing qualitative analysis.

### 3.5.2 Data analysis

Qualitative data analysis was conducted by means of a thematic qualitative analysis.[122] Research proposed that qualitative data should be analysed according to the following basic steps: (1) transcribing the verbal data after reviewing it. (2) identifying emerging codes before ascribing them into categories; (3) searching for themes/sub themes and assigning suitable unit of data to the relevant themes;(4) defining these themes/sub themes before making a report . The thematic content analysis approach was developed by Braun and Clarke and is a very simple and flexible analytical tool to use. It assists researchers to organise data easily to establish significant alignments.[122] In this study, data relating to assessing the need for management and leadership training in dentists were collected in the form of audio recordings and interview notes, which were then analysed. The researcher replayed the audiotaped interviews and transcribed verbatim all the responses received.

The data was transcribed and summarised by categorising words or phrases into themes. These themes were determined from the initial responses and themes that occurred repeatedly were coded and reported as such. They were then subsequently aligned against each participant code.

The Medical Leadership Competency Framework (MLCF) was used for the interpretation of the non-clinical skills.[12] Frequency distributions of the thematic analysis were calculated to complement the qualitative findings from a quantitative perspective.

### 3.6 Ethical considerations

The consent form explained the process of the study clearly (Appendix 1b). This study involved probing the private experiences of the participants, and the consent form gave adequate information about the research as well as stating the participation of the subjects. Participation in the research study was voluntary and participants were not under any obligation to take part. They were asked to sign the consent forms with the knowledge that they could withdraw at any time without any repercussions.

This study also had no impending risks to the participants, either through social, psychological or physical stress in any way. All the participants remained anonymous, while confidentiality regarding the participants' identity was maintained. In addition, all audio taped interviews and data were privately secured. Data will be stored in a safe place for a minimum period of 15 years. The participants were asked to verify the collected data before analysis commenced.

Permission to conduct the study was granted by the CEO, University of Pretoria (Appendix 3). Permission was also obtained from the MEC of Health in Gauteng for senior managers from the NDoH to participate in the research (Appendix 4). Ethics approval (352/2016) was obtained from University of Pretoria Ethics Committee for this study to be conducted (Appendix 5).

Data will be stored at and as prescribed by the University of Pretoria for a minimum of 15 years from the commencement of this trial/study.

# Chapter 4 RESULTS

## 4.1 Introduction

This chapter describes the data analysis and findings of the research.

Semi-structured interviews were conducted with fourteen senior managers and eleven recently qualified young dentists.
The interviews with the senior managers and young dentists were face-to-face and telephonic discussions, respectively. A questionnaire with predetermined open-ended questions formed part of the interview schedule (Appendix 1). The interview schedule also included the title as well as the aims and objectives of the study.

With the senior managers, the average time for the interviews was approximately 30 minutes with the shortest interview lasted approximately 7 minutes and the longest interview time about 120 minutes. However, the relevant information needed for the study was acquired.

The Young Dentists were invited via an email to participate in the study. Initially two of the 39 young dentists responded to the e-mail invitation to confirm their participation and a follow-up email sent after six weeks resulted in two further participants for the study. Following a request by the researcher, these four participants asked their colleagues if they would be interested to participate in the study. The four participants subsequently supplied the researcher with the contact details of seven more dentists who were willing to participate and invitation emails were sent out to them as well. Willing participants responded by sending their phone numbers, and appointments for telephonic interviews were subsequently scheduled. Emails were also sent by the primary researcher to thank the participants for their willingness to participate in the study. The telephonic interviews lasted approximately 18 minutes with the shortest time being 7 minutes conducted at 12:00 and the longest time was 49 minutes at 17:30. All participants agreed to share information without restrictions according to protocol and they signed informed consent forms and returned them by email before the scheduled interviews.

### 4.2 Data Analysis

All the interviews (face-to-face and telephonic) were audio-recorded, the audiotaped interviews were replayed, and all the responses received were transcribed verbatim. Each of the recordings were listened to a second time to match against what was transcribed. The transcription was entered into a MS Word document for analysis. The responses were summarised into themes for the various questions, which were determined from the initial responses. The research supervisors provided advice on the thematic analysis.

The Medical Leadership Competency Framework (MLCF)[12] was used for the interpretation of the non-clinical skills. The responses and themes were categorised according to the MLCF domains i.e. (1). Demonstrating personal qualities; (2) Working with others; (3) Managing services; (4) Improving services; (5) Setting direction.

#### 4.2.1. Themes from interviews with senior managers (SM) and young dentists (YD)

In this section, the responses to the questions by the senior managers (SM) and young dentists (YD) will be reported. For the YD's, questions 1 and 2 were related to their year of graduation, organisation where employed and nature of their duties respectively. All YD qualified between the years 2002 and 2015. Four were 5 years post qualification and two of the participants were foreign qualified. The YD were from four provinces in South Africa with five (45%) working in public institutions and six (55%) in private establishments. Six (55%) performed only clinical duties as their daily routine, while five (45%) performed both clinical and administrative duties at their work place. These questions were not posed to the SM.

***Question: What are your views about dentistry in South Africa?***

All SM (100%) agreed that dentistry in South Africa is experiencing major challenges.

"*The dynamics and diversity of South Africa as a country makes it even more challenging" (SM13).*

The responses to this question can be categorized into three broad themes: (1) Expensive and unaffordable dental services (placing providers under severe pressure); (2) Reduced pay-outs from third party funders; (3) Marginalisation of dentistry from other medical professions within the health sector.

In response to Theme 1 i.e. *Expensive and unaffordable dental services (placing providers under severe pressure)*, 71% of SM (SM02, SM03, SM05, SM06, SM07, SM08, SM10, SM12, SM13, SM14) interviewed, stated that dentistry is currently under strain and pressure from the external environment such as the economy. They however felt that dentistry still serves the overall good of the public despite being expensive. Dentistry is no longer viewed as a priority in general healthcare especially by third party funders in South Africa. The following illustrative quotes affirm these views.

*"The profession is facing serious challenges, people can hardly afford services" (SM03).*

*"Dentistry is expensive. People cannot afford services. Even those on medical aid"(SM05).*

SM10 expressed a view that since dentistry does not feature under the prescribed minimum benefits (PMBs) anymore, imposed on Medical Schemes, few medical schemes are willing to adequately fund dental services.

*"Patients are also increasingly under pressure to manage their savings for urgent medical conditions as opposed to dental treatment. Hence, they are less inclined to seek dental services timeously. They often visit the dentist only when it is urgent or they end up delaying dental treatment until it is too late. Because services are expensive, dental professionals are unable to provide quality comprehensive patient-centered care. The profession is under enormous pressure just to survive. It is increasingly becoming more expensive to set up and maintain a new practice. Dentists are facing a gradual increase in the cost insurance/indemnity cover. Consumables are expensive because they are imported and subject to fluctuations in foreign exchange rates. Consequently, many dentists now prefer to work for other colleagues as opposed to setting up their own practices. Many dentists now rather seek employment from employers such as the public service where they think the remuneration is better, without having to manage overheads cost"(SM10).*

One participant was positive that the system of dentistry in South Africa is quite adequate but that the proper implementation was a concern.

*"This starts with undergraduate training where teaching should be centred on the primary healthcare approach i.e. prevention and promotion, early diagnosis/detection, curative, and rehabilitation, instead of largely on curative, as was mainly the approach currently. This*

*primary healthcare approach will benefit to oral health in general and the society as a whole" (SM14).*

Similarly, 73% of YD (YD01, YD02, YD03, YD05 YD07, YD08, YD09, YD10) had a similar opinion that the dental profession in South Africa was highly constrained and not without challenges. These challenges include it being a demanding profession, medical counter parts not understanding the scope and therefore referrals being delayed because oral health is not perceived as a priority as well as dental consumables being dependent on the often-volatile exchange rates and economy

*"Very demanding job, medics don't understand the scope, therefore not prioritised and referrals delayed" (YD05).*

*"Another pressure also is our exchange rate which is been very volatile. Everything is imported and subject to the dollar, pound or euro" (YD07).*

*"The cost of dental treatment in South Africa is so high that so few people can receive adequate treatment" (YD10).*

*"Because of the lack of leadership and management, there are too many dentists qualifying every year and we are getting more saturated. There is competition amongst dentists as a survival of the fittest. There is hardly any dentist that wants to show and share" (YD02).*

In response to Theme 2 i.e. *Reduced pay-outs from third party funders*, *43*% of senior managers (SM03, SM06, SM08, SM10, SM11, SM12) confirmed that the dental profession was under serious threat. It is being considered less important as evident by the fact that dental pay-outs are becoming less and less by medical schemes.

*"I love clinical practice, but the main frustration is with the reduction in medical aid pay-outs leading to poor treatment planning and overcompensating with a heavy workload" (SM06).*

*"There is a decline in dental benefits by third party funders. It is now down to only 2% pay-outs of the total medical schemes, from 6% five years ago to a 2% which now is a substantial drop in pay-outs to dentists" (SM12).*

SM12 therefore confirmed that dental services have now become an out of pocket expenditure for most clients. This respondent also associated dentistry in South Africa being under pressure, from a perspective of medical schemes' priority to fund medical related conditions more. Oral health is not considered a life-threatening situation, the medical schemes would rather look after communicable, and other perceived life threatening diseases while dentistry is being side-lined (SM12).

18% of the young dentists (YD06, YD07) contributed towards the second theme. YD06 suggested that if changes with regarding medical schemes are to be made, leadership and management skills are required to get to positions where our voices are relevant.

*"Dentistry has been on a decline in South Africa because 80 % of practices rely on medical aid and the benefits have been cut off. A lot of people cannot afford to pay for treatment and that is why we rely on medical aid but now they do not pay anymore" (YD07).*

In response to Theme 3 i.e. *Marginalisation of dentistry from other medical professions within the health sector*, 21% of respondents (SM01, SM02, SM03) noted that the dental profession is being marginalised amongst their medical health counterparts.

*"It is a 'fascinating health science which offers a lot to dentists, the population and economy, but is however marginalised and needs a revolutionary vision with leaders moving the profession into a new era from the crisis" (SM01).*

SM03 pointed out that there is a big gap for advocacy for dentistry to be prioritised in the health agenda of the country. This marginalisation experienced in the dental industry is because of the lack of management and leadership skills within the profession.

"*We need leaders in dentistry that will collaborate dentistry with private stakeholders and boost the economy. We need leaders and managers in dentistry that will now effect a change with collaboration because we are isolated" (SM03).*

SM01 further added,

*"Dentistry is in dire need of Leadership. Part of the marginalisation is as a result of the lack of leadership in the profession. More leaders needed in the profession" (SM01).*

In response to the third theme, 27% of the YD (YD02, YD04, YD05), felt that the dental profession is no longer considered important to general health.

*"Dentistry seems not to be important any longer to general health we seem to be in isolation or not necessary" (YD02).*

*"In the rural areas, Oral health is not being treated as important as medical health" (YD04).*

The YD had an additional theme that related to *more focus on oral health resources*, represented by 27% of the young dentists (YD03, YD10, YD11). In their opinion, more focus on oral health resources are necessary in the public sector. YD03 was of the opinion that more needs to be done in terms of the awareness of oral health to the public particularly in the rural areas. The participant noted that there was funding conflicts between dentistry and medicine while also pointing out the disconnect between both the private and public sector in dentistry. YD10, who previously worked for the public sector, stated that there were too few dentists within the public sector posing a challenge to the huge demand. YD11 further added:

*'"Definitely the poor are disadvantaged because of the high patient load in the public hospitals, the focus leans on extractions rather than restorative dentistry. This can be helped by employing more dentists into the public sector" (YD11).*

***Question: List in order of importance, four non-clinical skills to teach the students?***

Table 4 summarises the SM responses to the question on the four non-clinical skills (in order of importance) to teach the dental students. These responses were categorised according to the adapted MLCF as shown below.

From the 14 senior managers' responses, 54 non-clinical skills were mentioned. Out of these 54 skills, 61.1% were within Domain C (managing services) and Domain D (improving

services) with 57.4% and 3.7% respectively. 16.6% of the skills belonged to Domain A (personal qualities) and 22.2% to Domain B (working with others).

*SM01 stated:*

*"Management of the dental practice because dentists invariably end up in positions such as clinical managers in private practice, leading teams (doctors as well as staff) in hospitals, and in university set ups" (SM01).*

Although, the participants were asked to rate the non-clinical skills, in total, the key overall skills included the following: financial management (16.6%); business skills (11.1%), marketing skills (9.2%), communication (9.2%), practice management (7.4%), interpersonal relationship skills (5.5%), ethics (5.5%), professionalism (3.7%), leadership skills (3.7%). general management (3.7%), human resource management (3.7%) and other (3.6%). Others included customer relations, entrepreneurship, dental coding, critical thinking, policy perspective skills, knowledge, personal behaviour, continuing education, respect, working with others and telephone etiquette.

The YD then listed (in order of importance) their four non-clinical skills to teach dental students. These responses were matched against the adapted MLCF as shown in Table 5. The11 YD, mentioned 43 skills as being important non-clinical skills to teach dental students. 56% of the YD's skills were within domain B (the ability to work with others) and domain A (personal qualities) i.e. 37% and 19% respectively; 42% were in domain C (managing services) and 2% in domain D (improving services).

The YD's non-clinical skills reported included the following: communication (16%), ethics & morals (16%), leadership (14%), teamwork (7%), general and practice management skills (7%), business skills (5%), and other 2%. Others included staff management, entrepreneurship, dental finance, time management, financial management, administration, human resources, labour laws and standard operating procedures.

## Table 4: Senior managers' list of non-clinical skills to teach dental students

| | Personal qualities | | | Working with Others | | Managing services | | | Improving services | | Providing strategic direction |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | ***A3 - Self development*** | ***A4 - Acting with Integrity*** | ***A1/B2 - Building and maintaining relationships*** | ***B0 - Building networks*** | ***B1 - Develop networks*** | ***C0 - General management skills*** | ***C2 - Managing resources*** | ***C3 - Managing people*** | ***D2 - Critical evaluation*** | ***D3/E1 - Encouraging innovation*** | ***E1 - Identify contexts for change*** |
| **SM01** | | | | | | 1. Practice management | 4. Financial Management | | 2. Critical Thinking | | 3. Policy perspective |
| **SM02** | | | | 2. Interpersonal relationships | | 1. Management | | | | | |
| **SM03** | | 2. Professionalism | | 1. Communication | | | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 3. Ethics | | 4. Interpersonal relationships | | | | | | | |
| **SM04** | 4. Knowledge | | | 1. Leadership | | | | | | | |
| | | | | 2. Communication | | 3. Management | | | | | |
| **SM05** | | | | 1. Communication | | 4. Practice management | 3. Marketing | | | | |
| | | | | | | | 2. Finance | | | | |
| **SM06** | | | | | | 1. Business | 2. Finance | 4. HR | | | |
| | | | | | | | 3. Marketing | | | | |
| **SM07** | | | | 1. Communication | | 2. Business | 3. Finance | | | | |
| | | | | | | | 4. Marketing | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **SM08** | | | | 3. Communication | | 2. Business | 1. Finance | | | | |
| | | | | | | | | | | | |
| | | | | | | | 4. Marketing | | | | |
| **SM09** | | 1. Ethics | | | | | 3. Finance | | | | |
| | | 2. Personal behaviour | | | | | | | | | |
| | | 4. Professionalism | | | | | | | | | |
| **SM10** | 4. CPE | | | 1. Interpersonal skills | | 2. Business skills | 3. Marketing | | | | |
| **SM11** | | | | | | 2. Business Management | 1. Finance | 3. Customer service | | 4. Entrepreneurial skills | |
| **SM12** | | 4. Ethics | | | | 1. Practice management | 3. Finance | | | | |
| | | | | | | 2. Coding | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **SM13** | | | | 2. Leadership | | 1. Practice management | | 4. Human resources | | | |
| | | | | | | 3. Business | | | | | |
| **SM14** | | | 2. Respect for persons | 4. Phone etiquette | 3. Working with colleagues | | 1. Finance | | | | |

## Table 5: Young dentists' list of non-clinical skills to teach dental students

| | | Personal qualities | | Working with Others | | Managing services | | | Improving Services |
|---|---|---|---|---|---|---|---|---|---|
| | ***A1- self awareness*** | ***A2 - Self Management*** | ***A4 - Acting with Integrity*** | ***B0 - Building networks*** | ***B3 - Working in teams*** | ***C0 - General management skills*** | ***C2 - Managing resources*** | ***C3 - Managing people*** | ***D3/E1 - Encouraging innovation*** |
| **YD01** | 3.Morals | | 2. Ethics | 1. Communication | | | | | |
| | | | | 4. Leadership | | | | | |
| **YD02** | | 3. Stress management | | 1. Communication | | 4. Standard operating procedures | | 2. Staff management | |
| **YD03** | | | 2. Ethics | 3. Communication | | 1. Business | | | 4. Entrepreneurship |
| **YD04** | | | 4. Ethics | | 3. Teamwork | 1. Practice management | 2. Dental finance | | |
| **YD05** | | | 4. Ethics | 2. Leadership | 3. Teamwork | 1. Business 5. Management | | | |
| **YD06** | | | | 1. Communication | | | 2. Time management | | |
| | | | | 3. Leadership | | | | | |
| **YD07** | | | | 1. Leadership | | 2. Management | | | |
| **YD08** | | | 1. Ethics | 2. Leadership | 3. Teamwork | | 4. Financial management | | |
| **YD09** | | | 1. Ethics | 2. Leadership | | 4. Admin and Scheduling 5. management | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | 3. Communication | | | | | |
| **YD10** | | | | 2. Written Communication. 3. verbal communication | | 4. Practice management | 1. Taxes | | |
| **YD11** | | | | | | 1. Practice management | | 3. Human resources | |
| | | | | | | 2. Medical Aid | | 4. Labor Laws | |

***Question: What is your opinion regarding the need for management and leadership training in Dentistry in South Africa?***

Whilst most of the participants acknowledged that management and leadership were often confused as the same and generally used interchangeably, 43% of respondents (SM02, SM03, SM05, SM07, SM08, SM13) mirrored similar answers as to the fact that there was clearly a need for both management and leadership amongst dentists in South Africa.

*"Definitely a need for both. Leadership: to get things done through people working together to share and implement your vision. On the operational side of things as well, managers are needed" (SM07).*

*"There is a very high need for both in dentistry. Leadership is important to lead the staff and interact with patients. The management side of things can be a bit difficult; organizing and planning a structure. Most private dentists spend a lot of money for professionals to come and manage their practices for them that include designing i.e. having a flow of clients from reception to waiting area, to consultation to departure" (SM13).*

The SM agreed that there is a general and wrong perception that leadership skills or the ability to lead comes with clinical experience and age. Sometimes even the dental clinicians take their own lack of these skills for granted. Most of the participants also acknowledged good leadership skills as the ability to influence all staff members together as one.

All the private sector SM (SM02, SM06, SM08, SM13, SM14) which is 36% of the senior managers, unanimously supported management and leadership skills in dentists as a critical requirement. This is mainly because the majority of qualified dentists along the course of their career, quite often end up in the private sector. Some eventually end up managing or owning their practices. SM11 acknowledged the need for dentists as business owners, to have general knowledge about human resources and development, finances, fixed and variable costs and how these affect the business. As leaders, dentists need to be able to forecast, look into the future and have a vision of how they are going to take the practice forward. This speaks to entrepreneurial thinking and visioning.

73% of YD (YD02, YD03, YD04, YD05, YD06, YD07, YD08, YD09) agreed that both management and leadership skills are needed for dentists.

*"A great need for having training done for both aspects. The need for one is not more than the other as both are lacking on the same level. There is a brief course given in final year that plays little significance and doesn't prepare the dentists enough" (YD02).*

*"There is a high need. Challenges are being faced which requires a different approach in terms of management and leadership training" (YD03).*

YD04 identified that student undergraduate training place more emphasis on clinical skills. This result in mainly clinical competency, proficiency and knowledge, with the lack of non-clinical skills that would contribute to working in partnership with staff as a team rather than running a one-person show.

*"It should be part of the training program for students. It's been mainly clinical study and practicing dentistry is more than the clinical component" (YD04).*

*"There is the opportunity and need for both, but funding is the bigger challenge" (YD07).*

*"We need to train dental practitioners on leadership skills and management skills" (YD08).*

36% of the senior managers (SM09, SM10, SM11, SM12, SM14) were of the opinion that the need is more on management training. According to one of the participants (SM12), many dentists leave it up to their non-clinical staff to manage their practices in SA. SM12 stated further that dentists generally take very little interest in the management of the practice. The result is that if the staff did not appear at work on a certain day the dentist could not deal with the day-to-day issues and manage the patients as well. They tend to rely heavily on both clinical and non-clinical staff to manage their practices while they lack knowledge about staff, stock control, equipment, supply chain and service providers (SM10):

*"Leadership skills would be an advantage if it's acquired, otherwise not necessary because a dentist can work on their own. Management training is crucial because you need to be*

*able to manage your practice. Leadership training is also crucial but in a lesser degree" (SM10).*

"*Dentists have very little leadership role to play in the industry except for if/when they serve on official structures of professional associations/ medical schemes. Hence, dentists don't play a large leadership role as such" (SM12).*

*"Big need for management training definitely especially amongst public servants. It's just an advantage to get leadership training but not really necessary" (SM09).*

SM14 who felt the need was more on the management side reiterated:
*"Management is needed, management is taught, step by step principles. Leadership is not taught it is however based on a value system. Leadership focuses should be on the university personnel and not the students in order to align the vision with the output. For leadership, the university has a responsibility to demonstrate it for the students to learn. Leadership is about values and vision. The university has to say; this is the vision of this institution, these are the values and then students will evaluate the leaders of their school based on the values and vision and the output of their school" (SM14).*

YD01 and YD11 (18%) felt that dental professionals lack good practice management skills and therefore, the need was more on management training.

*"Dire need for management first, with good leaders needed to get better healthcare" (YD01).*

*"We lack good practice management skills, so there is a need" (YD11).*

21% of the SM (SM01, SM04, and SM06) held the view that the need for leadership training amongst dental professionals in South Africa were higher. Participants cited leadership as being an integral need amongst the dental professionals:

*"There's a need for training on leadership in dentistry. As leadership, expectation falls upon us not by choice. We are looked up to automatically as one. It should be taught from the undergraduate level at the beginning and instilled from even the first year" (SM04).*

SM12 believed that management training was more necessary, recalling that in the past, dentists of old were automatically leaders in their field, both in the industry and non-industry. They had the ability to take a stand, speak for issues affecting oral health and effect change. There is an absence of that kind of leadership in the profession today (SM12).

YD10 felt stronger towards leadership training:

*"With regards leadership, we dentists in South Africa are quite far behind on the current concepts of how to lead in a dental practice. We need to take a more assertive role especially in the communities. We don't just lead in our practices but also extend it to communities around our practices by educating them" (YD10).*

In response to the question to the YD regarding "Did *your dental training equip you satisfactorily with appropriate non-clinical skills for you to successfully get your practice off to a good start?",* only YD01 (who is foreign trained) felt he was adequately equipped with non-clinical skills. The rest of the YD felt they lacked the necessary skills post-training. The rest of the respondents, trained in SA, gave the following responses:
*"No it didn't" (YD02); "No Not at all" (YD03); "Not well enough" (YD05); "I don't think so" (YD06); "Not at all, I learnt on the job" (YD07); "Not really" (YD08); "No. Absolutely not" (YD11)."Yes, sufficient lectures were given however not appreciated because as a student I was more focused on the clinical aspect. So regardless, of how well the university prepares the students with non-clinical skills it cannot be sufficient. In the postgraduate phase the professionals will need to appreciate the knowledge and skills learnt by adding more to them through extra training" (YD09).*

*"Yes and no, but on the whole not adequately. For example, not taught properly on how to manage a practice. Patient communications limited to about 4/5 lectures for the year" (YD10).*

***Question: Could you itemise direct/indirect initiatives currently taking place focusing on management development amongst dental professionals in South Africa that you are aware of?***

57% of senior managers (SM01, SM02, SM04, SM07, SM08, SM12, SM13, SM14), acknowledged the availability of some management courses for dental professionals at academic institutions as well as within the public sector.

SM01 added that although universities have some management courses for dental students, the training received was too nonspecific and hence not effective enough to be of use to them. This is because the curriculum focus was less on management skills and more on clinical skills.

SM13 added:

"*Probably at varsity there are courses, though I am not sure that the emphasis placed is as much as on the clinical. CPDs also, but not well enough" (SM13).*

According to SM07, corporate professional bodies such as Intercare, provide some form of management training:

*"Financial skills taught at the University of Pretoria through the practice management department to undergraduates by the Intercare offices" (SM07).*

SM08 added that there are also other general management courses at the universities or courses that were self-sought after by dental professionals themselves. Just not specific to the dental profession, such as a Master in Business Leadership (MBL).SM12 stated that there has been isolated CPD discussions at branch levels within the SADA structure, which from time to time provide lectures in practice management. SADA is also currently embarking on a more structured online webinar based practice management course. This has the added advantage of being accessible at any time to dentists, even at the leisure of their homes or offices in which case they would also obtain certificates of completion thereafter, but not a qualification.

SM14 confirmed that indirect initiatives within the public sector include final year students shadowing dentists to get an idea of how things are done. Furthermore, if the most senior professional in a hospital setting was a dentist, then that person has the responsibility to participate in hospital administrative meetings as well as other managerial activities such as budgeting. This is a way of on-the-job training without any prior formal training, which is challenging in itself.

SM03, SM05, SM06, SM10, SM11 (43%) had vague or no knowledge of initiatives focusing on management development in South Africa. SM06 and SM09 were vaguely aware of general management courses though not specifically related to dentistry.

45% of the YD (YD02, YD03, YD07, YD09, and YD10) had very vague knowledge, of current initiatives direct or indirect of specific management development courses in any institutions: *"Through short courses, diplomas in the university" (YD02).*

*"Some of the CPDs focus on clinical skills. A few on non-clinical It's mostly professionals in managerial positions that get the opportunity" (YD03).*

*"University of Pretoria has a program on practice management also SADA" (YD07).*

*"HPCSA road shows and DPA workshops" (YD09).*

YD10 was uncertain of the details, but was aware that SADA and perhaps the Young Dental Council (YDC) have some initiatives but these barely covers the basics of management.

There was 55% of the YD (YD01, YD04, YD05, YD06, YD08, YD11) who were totally unaware of any initiatives for management development amongst dentists in South Africa.

***Question: Could you itemise direct/indirect initiatives currently taking place focusing on leadership development amongst dental professionals in South Africa that you are aware of?***

79% of SM (SM01-SM07, SM09-SM12) were either not sure of, or unaware of any initiatives reflecting leadership development amongst dentists. These respondents agreed that they would certainly like to see leadership training suited specifically to the dental profession.

21% of SM (SM08, SM13, and SM14) are aware of some courses on leadership that are available. SM08 and SM13 maintain their opinion, that these have been inadequate, as it barely covers the basics.

"*I only know of mostly CPD courses, but these are never enough. A full course is needed. A great teacher in undergrad; from first year taught and gave an appreciable knowledge and deep insight into leadership and what to expect when running a dental practice. We need good undergraduate lectures like these" (SM13).*

According to SM14, courses are available within the public sector, some that are qualification and certificate courses. There are also shorter annual courses (available usually for a week or two) that are not for a qualification:
*"At a student level, none i.e. in the academic setting. In the management /admin level, there are programs. When one comes in to work in the public sector there is an induction. There is also a training where one is told how the government works, how to manage resources, how to get approval to use resources so that you avoid being audited to have used resources irregularly. One is taught financial management, resource management" (SM14).*

SM12, as with the management initiatives, confirmed that the SADA program has identified dentists under the age of 35 years to embark on a director development program with the institute of directors. This program is to equip dentists as future leaders in the dental fraternity. These professionals would not only serve as directors within the SADA structures but also have the opportunity to hold leadership positions in other entities like medical schemes. Currently though, it appears as if it is being designed primarily to develop leaders solely within the SADA structures.

Amongst the YD, 27% of them (YD02, YD06, YD10) had some awareness of leadership development for dentists linked to SADA's involvement in training dentists to be leaders. They were unsure about the detail though.

*"SADA started a leadership academy to train dentists into leadership positions. The YDC is also trying to groom dental professionals to raise them to become leaders. A lot more needs to be done in general not just as a dental association" (YD06).*

73% of the YD had no knowledge of any direct or indirect initiatives for leadership training in dentistry.

The general perception is that there is a lack of direct /indirect leadership development initiatives amongst the dental professionals in South Africa. This study also revealed that there was a general lack of awareness about management and leadership training amongst all the young dentists who participated.

***Question: Briefly, discuss how management training can best be delivered in the South African context?***

From the senior managers' responses, three broad themes were identified for management training: (1) Undergraduate level only; (2) Undergraduate level with a postgraduate follow up; (3) Postgraduate level only.

In response to Theme 1 i.e. *undergraduate level only*, 29% of senior managers (SM01, SM03, SM08, and SM10) supported this approach. They noted that, there is a high expectation of leadership skills despite the inadequate or lack of training during their undergraduate training. These participants believe strongly that these skills should have been provided during their undergraduate training.
SM03 believed that management training should be delivered through short courses in academic institutions by business schools. These courses should include skills such as supply chain management, financial management, risk management and human resource management.

"The *best time is in the final years where 4th/5th year students should be exposed to full functional set ups, to be taught management skills" (SM08).*

*"It is best acquired in undergraduate study; should significantly include non-clinical skills mentioned above with equal focus on clinical skills" (SM01).*

*"While in undergraduate level, presented by professional associations like SADA, DPA" (SM10).*
Participants agreed that the lack of managerial skills has led to frustrations in clinicians who battle under the enormous strain from the country's socioeconomic circumstances. The perception was that academic institutions should play a bigger role in redesigning a curriculum to include a significant measure of management training for the undergraduate dental students.

45% of the YD (YD04, YD05, YD07, YD08, and YD10) thought that the undergraduate phase was the best time to deliver managerial skills to dental professionals.

"*This should be part of the dental educational system from day one and I don't think its professional for doctors or other dentists to teach management unless they are qualified in that regard. Someone with experience of management at the corporate level to be involved and not just for a year or two but training should be from the beginning" (YD10).*

*"An undergraduate course at least by third year" (YD08).*

*"Professionals should come train at the undergraduate level in the universities" (YD05).*

*"Definitely in undergraduate like in 4th year perhaps in form of a research before graduation" (YD04).*

The second theme, which is *undergraduate level with a postgraduate level follow-up*, was supported by 36% of senior managers (SM02, SM04, SM07, SM12, SM1). They felt that management training should be followed up from undergraduate level into the postgraduate phase. It is deemed appropriate and better appreciated then, since it is applicable to the dentist's real life situations. Recommendations from the SM were that these could be certificate courses either through CPD forums or through presentations made by professional bodies.

"*Introducing it as a course in the undergraduate level either within a year or as a 6 month module and then continuous training in the postgraduate level" (SM13).*

*"Should be included in the undergraduate curriculum from a management company to be included as a module. Then follow up in the postgraduate level" (SM04).*

*"The days of someone standing in the front and lecturing to practitioners/individuals are numbered. Most would prefer to educate themselves with online possibilities, which they can do after hours (less traveling). Female dentists for fear of personal safety will not travel to CPD meetings in the evenings. So this will allow all interested dental professionals learn from the online materials in the safety of their homes" (SM12).*

45% of the YD (YD01, YD03, YD06, YD09, YD11) expressed that it is good to have managerial training delivered at all levels of education from the undergraduate phase right through to the postgraduate phase, as a necessary skill to acquire from early onset.

"*Good to be delivered at all levels. High school, undergraduate and postgraduate levels. Not as a separate course but incorporated into the clinical courses" (YD01).*

*"Undergraduate level. Also during postgraduate level, and then continuous learning" (YD03).*

*"Workshops and short courses in the postgraduate level. With basics taught at undergrad level" (YD09).*

*"It could start with lectures, then giving the opportunities for the dentists in the community service year (postgrad phase) to run a private practice under supervision for a few weeks or 3 months to put words into action" (YD11).*

Another 29% of senior managers (SM05, SM06, SM09, and SM11) contributed to the third theme of postgraduate training only.

"*Through Postgraduate courses more than undergraduate level" (SM05).*

*"CPD courses in the postgraduate level will yield better responses" (SM06).*

*"Through postgraduate training. But not long-term like going back to school but rather short courses such as CPD courses or online courses" (SM11).*

SM09 supported postgraduate dental management courses specific to the public health sector. It was suggested that these courses would cover topics on lack of funding, ill-maintained equipment and high patient turnover coupled with shortage of work force.

Only YD02 felt that this should be part of postgraduate training only:
*"It should be practical based. Otherwise, the knowledge would be lost. Through internship training in the dental setting" (YD02).*

***Question: Briefly discuss how leadership training can best be delivered in the South African context?***

From the senior managers' responses, three broad themes were identified for leadership training as well: (1) Undergraduate level only; (2) Undergraduate level with a postgraduate follow up; (3) Postgraduate level only.

43% of senior managers (SM01, SM07, SM08, SM10, SM13, SM14) regarded that leadership training ought to be delivered primarily in the undergraduate phase.

*"Very big challenge in the South African context. Many dentists gravitate towards private practice in an isolated environment not conducive for leadership development. Leadership is acquired over time primarily through mentorship and not just formal training. Deliberate mentorship; deliberate efforts to mentor students in universities by giving them responsibilities that nurture leadership" (SM01).*

*"Through the use of professional experts coming in to teach the students at the undergraduate level" (SM07).*

*"It's a skill that is taught through mentorship best in the undergraduate level" (SM08).*

SM14 felt strongly that leadership is learnt by imitating and cannot necessarily be taught. It lies within the responsibility of the universities to unpack the values that South Africa holds as a nation. Values such as respect and equity, to align with the vision of the university, to get the dental students from onset, to acquire leadership skills by imitating what they see (these values) from within their institutions.

Amongst the YD, 36% (YD04, YD07, YD08, YD10) prescribed that the undergraduate phase was the best time for leadership training within South Africa (in line with the first theme).

*"Also in undergraduate level like management, leadership should be taught not only in the fourth year but throughout the dental study. It can be acquired but leadership training should be started very early in undergraduate level" (YD04).*

*"Through business leaders as experts coming to teach in a university classroom. Learning from a mentorship role program in undergrad" (YD07).*

*"Leadership is best developed from a childhood stage where the mind starts to form. One should learn that other people matter as much as you do. Schools need to be improved and it needs to be introduced earlier where we learn how to be leaders in different ways at different times" (YD10).*

In response to the second theme of *undergraduate level with postgraduate follow up*, only 14% of the senior managers (SM02, SM03) believe that leadership training should best be carried from the undergraduate phase right through into the postgraduate phase. While SM02 confessed that leadership and management were still almost the same, the participant stated during the interview that the best way leadership training within South Africa could be delivered was through a formal setting such as in an undergraduate institution. This should be followed with a continuation of training in postgraduate level also within a formal setting. SM03 also felt that leadership training in the undergraduate level would be highly beneficial, by means of teaching, mentoring and coaching dental students along their course of study, while following through with short courses in the postgraduate phase to foster knowledge gained.

On the second theme, 55% of YD (YD01, YD02, YD03, YD06, YD09, YD11) felt that leadership training can best be delivered from undergraduate phase through to postgraduate phase.

*"Very early in undergraduate level such as in the 1st year and at the postgraduate level through the universities" (YD06).*

*"There should be greater motivation for leadership within the dental practice. It can be introduced as a major component of dental study and CPD courses for postgraduates" (YD02).* .

*"Undergraduate level. Also during postgraduate level, and then continuous learning" (YD03).*

*"Undergraduate basic knowledge with postgraduate more in-depth courses" (YD09).*

In response to theme 3 i.e. *postgraduate level only*, 43% of senior managers (SM04, SM05, SM06, SM09, SM11, SM12), felt that leadership training for dental students in South Africa should be done only at postgraduate level.

*"In the postgraduate level, because as students we focus on clinical skills and may end up not needing it after qualification" (SM04).*

*"Through congresses and learning from outside of South Africa by inviting someone to come in and interact with dentists, doctors and business people, so the variety will help nurture ideas. Also networking sessions to meet like-minded people not necessarily in the same line of industry to stimulate one's thinking" (SM11).*

This study acknowledged the need for management and leadership training. Different opinions about when to deliver it best i.e. undergraduate or postgraduate exist, but all participants agreed that management and leadership training are needed.

# Chapter 5 DISCUSSION

## 5.1 Introduction

The aim of this research study was to assess key stakeholders' opinion about the need for management and leadership training in Dentistry in South Africa. The research also sought to determine the most important clinical skills needed and how these skills could be developed and implemented. Senior managers and young dentists were interviewed to gain their perspective on the topic.

This chapter will discuss the results of the study.

## 5.2 Participant's opinion of the state of dentistry in South Africa (SA)

The results of the study indicates that participants had a pessimistic outlook on Dentistry in South Africa. This negative view about healthcare and dentistry in SA was supported by virtually all SM's and YD's views.

Some important themes in this regard emerged during the study. It became evident that the study participants were frustrated about the high cost and inadequate funding for Dentistry. The following quotes from SM06 and YD07 respectively, provides a synopsis of the funding dilemma.

*"I love clinical practice, but the main frustration is with the reduction in medical aid pay-outs leading to poor treatment planning and overcompensating with a heavy workload" (SM06).*

*"Dentistry has been on a decline in South Africa because 80 % of practices rely on medical aid and the benefits have been cut off. A lot of people cannot afford to pay for treatment and that is why we rely on medical aid but now they do not pay anymore" (YD07).*

Shisana et al. stated that from between 1996-2003 there was a reduction in medical aid coverage from 18% to 11%. It has rendered more people unable to afford medical aid and thus private healthcare, resulting in more patients attending the already overburdened public healthcare facilities.[5] The 2015/2016 report from the Council for Medical Schemes indicates a pay-out of 2.34% in 2015 to dentists and 0.67% to dental specialists and it is reducing annually (Council for Medical Schemes Report 2015/2016). Over 80% of the private

practices rely on medical aid. In South Africa the affordability of expensive private dental care is largely through the coverage by medical scheme, which is only possible for those with formal employment.[39] Unfortunately, the unemployment rate in SA[53] poses a huge challenge with affordability of medical scheme insurance.

Study participants confirmed that dentistry as a profession is poorly managed and that dentistry is being marginalised within the health professions. These results suggest that dentists in South Africa are unable to determine their own destiny within a rapidly changing external environment. It might even be that existing business models are outdated and that dentistry is not relevant in the context of the country's needs. The following quotations from YD02, YD04 and YD05 provide some insight to the thoughts of dentists out there.

*"My views are negative. We qualify as clinicians, we have challenges however even the clinical skills are not sufficient. Dentistry seems not to be important any longer to general health - we seem to be in isolation or not necessary. Because of the lack of leadership and management, there are too many dentists qualifying every year and we are getting more saturated. There is competition amongst dentists as a survival of the fittest and there is hardly any dentist that wants to show and share" (YD02).*

*"In the rural areas, Oral health is not being treated as important as medical health"(YD04).*

*"Very demanding job, medics don't understand the scope, therefore not prioritized and referrals delayed." (YD05).*

Some of the participants indeed held views that dentistry seemed not to be important any longer to general health and this is making the dental profession appear insignificant. Due to many challenges the South African PHS is facing,[36] the need for change is non-negotiable in the South African health system. With an increase in the complexity of health transition in over two decades, this has led to changes of focus in the health programs from the ministry of health in South Africa to address this burden of disease.[37] Needless to say, due to this huge focus on more urgent health issues, dentistry is treated as an insignificant part of the system and is often seen as an expensive luxury.[38] The main challenges in dentistry in SA, are linked to the considerable social and economic inequalities of South Africans, stemmed from an old history of apartheid.[30] This has led to a wide disparity with a high rate of

unemployment amongst South Africans. This socioeconomic constraint presents a situation where most people can ill-afford dental treatment.[31]

Pyle *et al*.[88] added that dentistry is fast evolving into high-end procedures for those who can afford them, with the rest of the population continuing to bear the burden of oral disease. This creates a risk of rendering the dental profession into isolation and marginalisation because of the following: (1) reduced participation of dental services in primary care; (2) the dental profession paying less attention to disease trends, (3) preventing the integration of oral health models into that of other health professions.[88] The bulk of the dental services rendered, are consequently the relief of pain and sepsis mainly, despite a huge demand for more advanced treatment at state institutions.[38] Dentistry in SA, therefore, is facing a crisis where the demand at state facilities cannot always be met.

Health inequalities are unfortunately not sufficiently attended to, amidst the heavy burden of disease in South Africa.[34] Other concerns noted by participants, were the poor implementation in healthcare, shortage of manpower and poor management of equipment and the need for more oral health awareness campaigns especially in rural areas. This is supported by Dhai[34] who confirmed that despite good policies being in place, management and leadership constraints have failed and hampered the implementation of the envisaged healthcare system from its full potential.[34] Dentistry is also not ranked as vital as medical health and even amongst medical counterparts, dentistry is being marginalised.

SM03 stated:
*"We need leaders and managers in dentistry that will now effect a change with collaboration because we are isolated" (SM03).*

The situation, even in dentistry, has been made more difficult by an increase in the complexity of health with a transition in over two decades. This resulted in the channelling of national health policy changes and altering the overall coverage of health more in favour of HIV and tuberculosis as well as maternal, neonatal and child health.[36] Experiences are being seen in other countries where studies have debated that a National Health Insurance (NHI) would help to alleviate this problem by increasing health service access to all.[55,56] The prevalence of oral health unfortunately affects mainly the underprivileged, with pain leading to detrimental consequences, having a negative impact on their quality of life. It has become

a major public health problem together with chronic diseases and injuries. Strong leadership will be required to ensure the success of the NHI and especially to guarantee equal importance of oral health in the system. Gilson and Daire in 2011 argued that South Africa needs leaders and managers in positions of responsibility amongst professional health workers who can motivate for transformation and implement policies to improve healthcare service delivery in South Africa.[35]

### 5.3 The need for management and leadership training and non-clinical skills

All the participants in this study agreed that dentists are in dire need of management and leadership training. They recognised the real leadership and management challenges they face due to a lack of these skills after graduation. Leadership is a necessary skill for dentists to acquire since they inevitably end up leading their teams.[91,120] These skills are particularly needed to encourage change and innovation while at the same time equipping professionals to master the challenges.[91]

*"Big gap for advocacy for dentistry to be prioritized in health agenda. Therefore we need leaders in dentistry that will collaborate dentistry with private stakeholders and boost the economy" (SM03).*

*"There's a need for training on leadership in dentistry. As leadership, expectation falls upon us not by choice. We are looked up to automatically as one. It should be taught from the undergraduate level at the beginning and instilled from even the first year" (SM04).*

*"Its needed because it's important to be taught leadership to learn how to lead the team, then management to help to manage the business" (SM08).*

"*There is a high need. Challenges are being faced which requires a different approach in terms of management and leadership training" (YD03).*

*"We need to train dental practitioners on leadership skills and management skills" (YD08).*

These sentiments were supported by studies where practising dentists acknowledged the need for a Dental Practice Management course being included in the curriculum.[79] This is

an outcry from dental practice owners, who are facing the adverse effect of the external environment on dental practice owners such as declining medical pay-outs. Dentists who graduate all over the world qualify with sufficient clinical skills. They then engage in non-clinical activities when they gain employment into the labour market. As proved by studies, there is a lack of these soft skills that contribute to the holistic person.[83]

These non-clinical activities include self-management skills, managing services, professionalism, communication and working with others all within the dental environment.[67] Dentists who also want to support the profession further, contribute towards the growth of the profession by participating in volunteering, research, and mentorship of the upcoming professionals. Non-clinical skills such as management, leadership and communication amongst others, are therefore vital skills to obtain, to equip these dental professionals holistically in responding to the needs of the society as well as preserving the self-sufficiency of the dental profession.[71]

The majority of the SM and YD confirmed that they did not have sufficient training at undergraduate level in non-clinical skills to adequately prepare them for dental practice as professionals.

When asked for the four important non-clinical skills to teach dental students, the senior managers considered financial management (64%), business skills (43%), communication /marketing (36%) and practice management (29%) as the most important non-clinical skills to teach dental students in undergraduate level. When taking the MLCF in consideration, these fall within the domain B (working with others) and domain C (managing services). The findings are an indication that the senior managers, with several years post-graduation and being in the dental practice environment long enough, recognised these skills (particularly financial management) as important when running a business in healthcare delivery. The YD on the other hand viewed communication (64%) and leadership skills and ethics (55%) (both within the domain B of working with others), as well as practice management skills (27%) and business skills (18%) (both within the domain C of managing services) as the most important non-clinical skills to teach students in training. These results can be linked to the fact that 73% of the 11 YD are only 8 years post-graduation and their core focus is mainly on clinical care with skills such as communication, leadership and ethics. This is an indication that these YD need to develop skills to competently perform on the next level of the MLCF of managing services.

Research confirmed the importance of non-clinical skills for health professionals such as dentists to be successful. It is therefore imperative that these skills are taught. From the findings, it is clear that the majority of the participants' skills fall within the MLCF domain of personal qualities (domain A), working with others (domain B) and the senior managers moved to managing services (domain C). Improving services (domain D) and providing strategic direction (domain E) are areas that need to be explored to establish at which level of the curriculum and training, the skills in these domains can be taught best.

### 5.4 Delivery of management and leadership training in South Africa

From the findings, the SM confirmed that there was no appreciable management training during their undergraduate dental training to sufficiently prepare for clinical practice. This was contrary to the recently qualified dentists who agreed to some form of Dental Practice Management training as part of the undergraduate curriculum, but still felt that it did not prepare them for leadership roles. YD09 admitted:

"*Yes, sufficient lectures were given however not appreciated because as a student I was more focused on the clinical aspect . So regardless, of how well the university prepares the students with non-clinical skills it cannot be sufficient. In the post graduate phase the professionals will need to appreciate the knowledge and skills learnt by adding more to them through extra training" (YD09).*

Deductions from past literature shows that dental professionals can be trained in leadership knowledge and skills.[76] Yet, dental schools have not incorporated the necessary leadership skills adequately to prepare dental professionals to be able to perform in leadership roles.[71,77,78] Dental students are generally not taught specifically to become proficient in non-clinical skills such as communication, critical thinking and decision making skills, for casting and piloting a changing environment. Some attempts have been made to teach them about communication and teamwork but despite this, these programs have not always adequately equipped dental students for leadership.[94] Research has corroborated that it is now relevant that specific education, focusing on management and leadership in the dental field be presented to students in undergraduate level.[75,95,96] Imparting this management and leadership training early in undergraduate level to dental students would have remarkable

benefits. Apart from informing a better understanding of how to lead a dental team, this training also assists educators to quickly recognise future leaders. The students, by themselves are able to aspire on their own and grow into awareness of their innate leadership abilities.[94]

From results of the study, it was generally agreed that leadership training should be facilitated at all levels in dentistry, from the undergraduate phase through to the postgraduate phase. This view is also in line with literature that support the undergraduate and postgraduate leadership training.[9,90] With leadership training to be successful and have an impact, it is important to evaluate the readiness of students to accept, and participate in leadership training courses, developed and carried out by their training institution.[89,99] Some limitations with the undergraduate curriculum includes shortage of time with curriculum overload together with dental undergraduates not always seeing the relevance of the leadership training.[42] Given the reality of time shortage and with curriculum overload in especially undergraduate study as well as students not finding the training relevant,[3,85,104] this proposes that leadership and management training should continue in the postgraduate phase where some find it more applicable. In addition, another study done by Kabir *et al*. supported the view that health professionals do not always attend postgraduate courses either due to lack of time, support or opportunity. They also seem to rather prefer to spend most of their time focusing on their clinical work, and leave the support staff to the management and leadership roles.[96] Ultimately, based on the study results and consistent with previous literature,[9,90] it can be concluded that management and leadership training and education is vital at all levels from undergraduate study through to postgraduate level.

In reference to the MLCF, this model can be used to structure the leadership training from undergraduate to postgraduate level. Domain A (personal qualities) and domain B (working with others) which forms the basics of leadership skills, should be compulsory in the undergraduate curriculum. At this early stage in the undergraduate level, these skills include self-development, self-awareness, acting with integrity, communication, teamwork and ability to build and maintain relationships. Dental students should then at least be introduced to domain C (managing services) and managing people forms part of that. In the postgraduate level of their career, they could improve on these skills with more focus on general management skills, improving services, evaluating impact and providing strategic direction. These skills fall within domains D and E of the MLCF.

Even though there were mixed responses from participants as to the best way management training can be delivered to dentists in South Africa, the study indicated that leadership and management training is indeed relevant. What the majority agreed on was that the training should commence in the undergraduate level with follow up courses in the postgraduate phase.

# Chapter 6 CONCLUSION AND RECOMMENDATIONS

## 6.1 Conclusion

The main objectives of this research was to assess stakeholders perceptions on the need for management and leadership training amongst dentists in South Africa and how best to deliver this training.

### 6.1.1. The need for management and leadership training in Dentistry in South Africa

The results of this study clearly suggests a dire need for the development of management and leadership skills in dental professionals in South Africa. Key stakeholders' opinions advocated that dentists in SA are very pessimistic about the changing environment. There are clear indications that they are inadequately equipped to deal with funding frustrations and the alleged marginalisation of dentistry. Moreover, they appear to be unable to liaise and network with other professions to be able to negotiate their rightful existence of dentistry in the South African healthcare system. These observations strongly suggest that dental training should not only entail clinical training but that the necessary non-clinical skills be developed that would ensure that dentistry as a profession can sustain themselves and contribute in an appropriate way to the healthcare system.

### 6.1.2 Most important non-clinical skills required in dentistry in SA

The most important non-clinical skills identified by stakeholders in this study could be categorised to be related to clinical care and the operational management of a dental practice. Younger dentists more often than not referred to skills in the lower levels of the MLCF while the older more experienced stakeholders more frequently mentioned higher order skills in the pyramid. It is however, notable that the study participants in total did not mention many specific higher order skills that would provide strategic direction to the profession to sustain itself, indicating a lack of awareness in this regard. Leadership on its own was mentioned on several occasions.

### 6.1.3 Suggested methods to develop management and leadership training in SA

From the results, it was unanimously agreed that the need for management and leadership skills be incorporated earlier in the dental curriculum to enable dental students realise their

leadership potential on time. The majority agreed that it should start in the undergraduate level and continue through to postgraduate to have a bigger impact.

Most of the participants were aware of some form of leadership/management training either in the academic institutions, through SADA or organised by cooperate bodies. The general perspective however was that these trainings were too general and they would like to see these trainings better suited to the dental profession. It was agreed that tertiary institutions should play a vital role in the organisation of customised discipline specific training.

### 6.2 Limitations

The abovementioned inferences should be viewed in the context of the study limitations mentioned below.

The sample size was relatively small, which may affect the generalisability of the study. It could however be argued that the key stakeholders who were consulted in this study were fairly representative of the incumbent organisational leadership in dentistry in South Africa. Young dentists also originated from multiple training institutions to give a perspective of their recent education.

The primary researcher (MT) who was integral in the study and had an avid interest in this topic, conducted the interviews, thus the existence of possible bias may be argued.

### 6.3 Recommendations

The following recommendations are based on the fact that the study concluded that management and leadership training is vital for dentists in South Africa:

- All dental schools to develop the capacity and expertise to develop management and leadership skills at undergraduate and postgraduate level
- All dental schools to implement customised management and leadership training applicable to the local context for their students
- Dental Schools to consider to implement developmental models that include various stages of development such as the MLCF to develop the necessary leadership skills logically over time.

- The development of virtuous personal qualities, teamwork, intra- and inter professional collaboration and networking (as defined in the MLCF) need specific attention in undergraduate dental curricula to ensure the development of interpersonal skills required for negotiation of influence.
- Dental practice management must be taught at an appropriate level at an undergraduate level.to prepare students for practice
- Higher emphasis be placed on the higher order leadership skills (as defined in the MLCF) to ensure that graduates have a stronger sense of strategic management, especially at postgraduate level.

### 6.4 Future Research

- Future research should focus on curriculum development and evaluation in the domain of management and leadership development at undergraduate and postgraduate level.

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# APPENDICES

## Appendix 1a: Research request letter

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

**Department of Dental Management Sciences**
**School of Dentistry**

**Researcher's name:** Dr Michelle O. Tukuru
**Department of Dental Management Sciences**
**University of Pretoria**
28th November 2016

Dear Prof/Dr/Mr/Mrs……..

**REQUEST FOR STAKEHOLDERS TO PARTICIPATE IN A RESEARCH PROJECT**

Academic personnel of the Department of Dental Management Sciences, University of Pretoria, are in the process of undertaking a research project titled "**Assessing the need for management and leadership training in dentistry in South Africa"** This letter serves as an invitation for the Stakeholders to participate in the research project**.**

The purpose of the study will be to assess key stakeholders' opinion about management and leadership development in Dentistry within South Africa, and how they can be developed.

The agreeing participants will be contacted to fill consent forms (**See Appendix 1: Consent form**) and to set up a meeting date and time to answer a few questions for the study (**See Appendix 2: Interview Schedule**). Participation in this study is voluntary.

The Research Ethics Committee of the University of Pretoria's Dental School has granted approval for this study.

For any further information, please do feel free to contact **Michelle Tukuru at 0786395553 or bunmisnest@yahoo.com**

We sincerely appreciate your consideration of this request.

Yours sincerely

**Prof JG White**
**Head: Department of Dental Management Sciences**
**School of Dentistry**
**Faculty of Health Sciences**
**University of Pretoria**

**Appendix 1b: Consent Form**

**PARTICIPANT'S INFORMATION & INFORMED CONSENT DOCUMENT**

**STUDY TITLE: Assessing the need for management and leadership training in Dentistry in South Africa.**

**Principal Researcher:** Michelle O. Tukuru

**Institution:** University of Pretoria, Dental Practice Management unit of the Oral Health Sciences department

**DAYTIME AND AFTER HOURS TELEPHONE NUMBER(S):**

**Daytime numbers: 0786395553**

**Afterhours: 0786395553**

**DATE AND TIME OF FIRST INFORMED CONSENT DISCUSSION:**

| | | | | |
|---|---|---|---|---|
| | | | | **:** |
| **dd** | **mmm** | **yr** | | **Time** |

Dear Dr. ..... date of consent procedure …...../…...../…....

**1) INTRODUCTION**

You are invited to volunteer for a research study. This information leaflet is to help you to decide if you would like to participate. Before you agree to take part in this study you should fully understand what is involved. If you have any questions, which are not fully explained in this leaflet, do not hesitate to ask the investigator/researcher. You should not agree to take part unless you are completely satisfied with all the procedures involved.

**2) THE NATURE AND PURPOSE OF THIS STUDY**

You are invited to take part in a research study. The aim of this study is to **assess the opinion of stakeholders on the need for management and leadership training**

**in dentistry in South Africa. By doing so we wish to evaluate key stakeholders opinion on how management and leadership training can be developed in dentistry in South Africa.**

**3) EXPLANATION OF PROCEDURES TO BE FOLLOWED**

This study involves **two phases. The first phase involves one-on-one interviews with stakeholders including senior managers, dentists. The second phase includes one on one interviews with recently (less than five years) graduated dentists.**
**There will be an audio recording of the interviews.**

**4) RISK AND DISCOMFORT INVOLVED.**

The study will have no risks to the participants involved. Confidentiality will be maintained.

**5) POSSIBLE BENEFITS OF THIS STUDY.**

**To inform policy changes to oral health in South Africa with regards to management and leadership training and development.**

**6) I understand that it is a voluntary participation and I am not under any obligation to participate.**

**7) I may at any time withdraw from this study.**

**8) HAS THE STUDY RECEIVED ETHICAL APPROVAL?**

This Protocol was submitted to the Faculty of Health Sciences Research Ethics Committee, University of Pretoria, telephone numbers 012 3541677 / 012 3541330 and written approval has been granted by that committee.

**9) INFORMATION**

If I have any questions concerning this study, I should contact:

**Dr Michelle Tukuru** **Mobile: 078 639 5553**

**10) CONFIDENTIALITY**

All records obtained whilst in this study will be regarded as confidential. Results will be published or presented in such a fashion that participants remain anonymous.

## 11) CONSENT TO PARTICIPATE IN THIS STUDY.

I have read in a language that I understand the above information before signing this consent form. The content and meaning of this information have been explained to me. I have been given opportunity to ask questions and am satisfied that they have been answered satisfactorily. I understand that if I do not participate it is my prerogative. I hereby volunteer to take part in this study.

I have received a signed copy of this informed consent agreement.

| | |
|---|---|
| ..... | ..... |
| Participant name | Date |
| ..... | ..... |
| Participant signature | Date |
| ..... | ..... |
| Investigator's/ Researcher's name | Date |
| ..... | ..... |
| Investigator's/ Researcher's signature | Date |
| ..... | ..... |
| Witness name and signature | Date |

**VERBAL PATIENT INFORMED CONSENT** (applicable when participants cannot read or write)

I, the undersigned, Dr ……..…, have read and have explained fully to the participant, named …….., the participant information

leaflet, which has indicated the nature and purpose of the study in which I have asked the participant to participate. The explanation I have given has mentioned no possible risks and benefits of the study. The participant indicated that he/she understands that he/she will be free to withdraw from the study at any time for any reason.
I hereby certify that the participant has agreed to participate in this study.

Participant's Name _____

(Please print)

Participant's Signature _____ Date _____

Investigator's Name _____

(Please print)

Investigator's Signature _____ Date _____

Witness's Name _____ Witness's Signature _____ Date _____

(Please print)

(Witness - sign that he/she has witnessed the process of informed consent)

## Appendix 2a: Interview Schedule - Senior Managers

GROUP 1: Purposefully selected stakeholders in Dentistry in South Africa by virtue of their experience in dental services.

**Title of study:** Assessing the need for management and leadership training in Dentistry in South Africa

The aim of the study will be to assess key stakeholders' opinion about management and leadership development in Dentistry within South Africa.

The objectives are as follows.

- To assess key stakeholders' opinion about the need for management and leadership training in Dentistry in South Africa.
- To assess key stakeholders opinion about how management and leadership training could be developed in Dentistry in South Africa.

Participants will be asked to respond to the following questions:

- What are your views about dentistry in South Africa?
- List in order of importance, four non-clinical skills to teach the students? Elaborate on your choices please?
- Management and leadership are different concepts, but are often used interchangeably. The difference is that leaders focus on goals/vision and developing people while managers are involved in daily maintaining the effectiveness and efficiency of a system/structure. What is your opinion regarding the need for management and leadership training in Dentistry in South Africa?
- Could you itemise direct initiatives currently taking place focusing on leadership development amongst dental professionals in SA that you are aware of?
- Could you itemise indirect initiatives currently taking place focusing on leadership development amongst dental professionals in SA that you are aware of?
- Briefly discuss how management training can be best delivered in the South African context?
- Briefly discuss how leadership training can be best delivered in the South African context?

## Appendix 2b: Interview Schedule - Young Dentists

GROUP 2: Recently qualified dentists (less than five years post-graduation) – registered with the Young Dentists' Council (YDC) affiliated to the SADA

**Title of study:** Assessing the need for management and leadership training in Dentistry in South Africa

The aim of the study will be to assess key stakeholders' opinion about leadership development in Dentistry within South Africa.

The objectives are as follows.

- To assess key stakeholders' opinion about the need for management and leadership training in Dentistry in South Africa.
- To assess key stakeholders opinion about how management and leadership training could be developed in Dentistry in South Africa.

These participants will be asked to respond to the following questions.

- When did you qualify?
- Where you are currently employed and what is the nature of your duties?
- What are your views about dentistry in South Africa?
- List in order of importance, four non-clinical skills to teach the dental students. Elaborate on your choices please?
- Management and leadership are different concepts, but are often used interchangeably. The difference is that leaders focus on goals/vision and developing people while managers are involved in daily maintaining the effectiveness and efficiency of a system/structure. What is your opinion regarding the need for management and leadership training in Dentistry in South Africa?
- Did your dental training equip you satisfactorily with appropriate non-clinical skills for you to successfully get your practice off to a good start?
- Could you itemise direct initiatives currently taking place focusing on management development amongst dental professionals in SA that you are aware of?

- Could you itemise indirect initiatives currently taking place focusing on leadership development amongst dental professionals in SA that you are aware of?
- Briefly discuss how management training can best be delivered in the South African context?
- Briefly discuss how leadership training can best be delivered in the South African context?

## Appendix 3: Permission from Dean: School of Dentistry, University of Pretoria


**Chairperson:**
Prof LM Sykes
**Members:**
Prof T Swart
Prof SM Dawjee
Dr P Brandt
Prof A Bhayat
**Secretary:**
Ms C Swart

**RESCOM/ NAVKOM**

**School of Dentistry / Skool vir Tandheelkunde**
**Faculty of Health Sciences**
**Fakulteit Gesondheidswetenskappe**

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

P.O. Box 1266
PRETORIA 0002
**Tel:** 012 319 2683/2415
**Fax:**012 323 0561
**E-mail:**
leanne.sykes@up.ac.za
christa.swart@up.ac.za


2016-08-15

Prof AJ Ligthelm
Dean
School of Dentistry

Dear Professor

**PROTOCOL APPROVAL: DENT 2016/20**

Name: Michelle O Tukuru

**Title: "Assessing the need for management and leadership training in Dentistry in South Africa"**

The protocol attached hereto was evaluated by the Research Committee of the School of Dentistry. The Research Committee recommends the approval of the title and the protocol.

Yours sincerely

**PROF L SYKES**
**CHAIRPERSON: RESEARCH COMMITTEE**

Protocol approved/not approved

**PROF AJ LIGTHELM**
**DEAN: SCHOOL OF DENTISTRY**

## Appendix 4: Permission from the Director General: Health

DIRECTOR GENERAL
HEALTH
REPUBLIC OF SOUTH AFRICA

PRETORIA
Private Bag X828, PRETORIA, 0001. 27th Floor, Room 2710, Civitas Building, Cnr Thabo Sehume & Struben Street, PRETORIA, 0001 Tel: 012 395 8000, Fax: 012 395 8422
CAPE TOWN
P.O. Box 3875, CAPE TOWN, 8000, 6th Floor, Room 617, 103 Parliament Towers, Plain Street, CAPE TOWN, 8000 Tel: 021 461 2040, Fax: 021 461 6864

Dr Michelle Tukuru
Department of Dental Management Sciences
School of Dentistry, Faculty of Health Sciences
University of Pretoria
P. O. Box 1266
**PRETORIA**
0001

Dear Dr Tukuru

**PERMISSION TO CONDUCT A STUDY ON ASSESSING THE NEED FOR MANAGEMENT AND LEADERSHIP TRAING IN DENTISTRY**

The National Department of Health (DoH), acknowledges receipt of a letter dated 20 February 2017, requesting approval to conduct a study on: "Assessing the Need for Management and Leadership Training in Dentistry in South Africa".

In response to your request to interview a Senior Manager in Oral Health within the National Department of Health permission is granted on condition that:

- participation is voluntary and information solicited from the questionnaires will be kept anonymous; and
- permission to present or publish findings of the study is sought with the NDoH first.

Submission and presentation of the final report of the assessment with recommendations to the DoH, is recommended as feedback.

Yours sincerely

**MS MP MATSOSO**
**DIRECTOR-GENERAL: HEALTH**
**DATE:** 31/3/2017

## Appendix 5: Ethics Approval

The Research Ethics Committee, Faculty Health Sciences, University of Pretoria complies with ICH-GCP guidelines and has US Federal wide Assurance.
- FWA 00002567, Approved dd 22 May 2002 and Expires 20 Oct 2016.
- IRB 0000 2235 IORG0001762 Approved dd 22/04/2014 and Expires 22/04/2017.

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Health Sciences Research Ethics Committee

**22/09/2016**

**Approval Certificate**
**New Application**

**Ethics Reference No.: 352/2016**

**Title:** Assessing the need for management and leadership training in Dentistry in South Africa

Dear Dr Michelle Olubunmi Tukuru

The **New Application** as supported by documents specified in your cover letter dated 14/09/2016 for your research received on the 14/09/2016, was approved by the Faculty of Health Sciences Research Ethics Committee on its quorate meeting of 21/09/2016.

Please note the following about your ethics approval:
- Ethics Approval is valid for 2 years
- Please remember to use your protocol number (**352/2016**) on any documents or correspondence with the Research Ethics Committee regarding your research.
- Please note that the Research Ethics Committee may ask further questions, seek additional information, require further modification, or monitor the conduct of your research.

**Ethics approval is subject to the following:**
- The ethics approval is conditional on the receipt of **6 monthly written Progress Reports**, and
- The ethics approval is conditional on the research being conducted as stipulated by the details of all documents submitted to the Committee. In the event that a further need arises to change who the investigators are, the methods or any other aspect, such changes must be submitted as an Amendment for approval by the Committee.

We wish you the best with your research.

**Yours sincerely**

**Dr R Sommers**, MBChB; MMed (Int); MPharMed,PhD
**Deputy Chairperson** of the Faculty of Health Sciences Research Ethics Committee, University of Pretoria

*The Faculty of Health Sciences Research Ethics Committee complies with the SA National Act 61 of 2003 as it pertains to health research and the United States Code of Federal Regulations Title 45 and 46. This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki, the South African Medical Research Council Guidelines as well as the Guidelines for Ethical Research: Principles Structures and Processes, Second Edition 2015 (Department of Health).*

☎ 012 356 3084 deepeka.behari@up.ac.za / fhsethics@up.ac.za http://www.up.ac.za/healthethics
✉ Private Bag X323, Arcadia, 0007 - Tswelopele Building, Level 4, Room 60, Gezina, Pretoria