

**JOB SATISFACTION OF DENTAL STAFF IN THE PUBLIC  
SECTOR IN THE NORTHERN CAPE**

by

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## **KEYWORDS:**

**Northern Cape Province**

**Public Dental Services**

**Staff Satisfaction**

**Working environment**

**Income and job satisfaction**

**Sense of Achievement**

**Job fulfilment**

**Skills utilization**

**Health Management**

**Job performance**



## **ABSTRACT**

‘A satisfied worker is a happy worker’, this statement by Robbins (1998), sums up the importance of job satisfaction. Locke (1976), defined job satisfaction as the ‘positive emotional state resulting from the appraisal of one’s job and job experiences’.

The Northern Cape province is the largest province in South Africa, by area. Oral health mainly focuses on primary health care and pain relief. Dental staff in the public sector are employed at district level, and not at sub-district level. This scenario requires dental staff (dentists, dental therapists, oral hygienists and dental assistants) to travel to rural areas that have working conditions that are not always optimal for dental treatment. Faced with numerous work-related challenges, it is believed that staff morale and motivation is particularly low in the province, as in the rest of South Africa in the public health sector (Howse, 2000).

This research assessed the job satisfaction of dental staff in the public sector in the Northern Cape, and aims to make management aware of the need and the importance of oral health services, for staff and patients.

The study found that the majority of the dental staff appear to enjoy their working environment (60%), love what their job entails (76%), and would like to continue their job in the long run (74%). Eighty percent of the participants reported that they experienced teamwork and 71% appreciated the support of their staff, which are very positive findings. However, it appears that the staff are not totally happy or satisfied with their work environment, and have identified various factors that need to be addressed to improve their job satisfaction.

Seventy-four percent of the staff listed resources (human, financial, physical) as the major work-related factors that need to be addressed to improve their job satisfaction.

The majority of the dental staff reported that the staff shortage, the poor communication with their administrator, the inadequate quantity and quality of equipment, the limited services being offered to patients, the lack of opportunities to make use of and improve their clinical skills, and their salary, are factors that need to be addressed to improve their job satisfaction.

Just over half of the participants also stated that the salary they earn is not as important as the satisfaction gained from serving the public, and 80% of the participants felt that their job allows them to make a contribution to their community. Having a significant proportion of staff who feel that the salary they earn is not as important as serving their community is both interesting and praiseworthy.

The dental staff seem to be giving of their best despite their current work environment, but expressed a need and willingness to deliver a more comprehensive oral health service that makes full use of their clinical skills, and that is not constrained by a lack of finances or limited treatment options. This is a positive foundation that needs to be built on to improve a service that clearly needs improving.

The Department of Health of South Africa should provide adequate oral health services to the public, and should ensure that the dental staff are satisfied with their jobs. By identifying areas of concern that affect job satisfaction, these specific areas can be improved (Shugars *et al*, 1990). By increasing the dental staff's job satisfaction, the staff morale can be improved. This will lead to increased productivity and quality of care (Harris *et al* 2008; Syptak *et al*, 1999). Satisfied practitioners are particularly important for a successful dental practice and the well-being of patients (Puriene *et al*, 2008a).

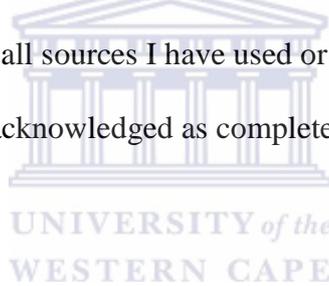
# **JOB SATISFACTION OF DENTAL STAFF IN THE PUBLIC SECTOR IN THE NORTHERN CAPE**

## **DECLARATION**

I,

Erin Jöan Christiaans,

hereby declare that the work contained in this thesis is my own original work and has not previously, in its entirety, or in part, been submitted at any university for a degree and that all sources I have used or quoted have been indicated and acknowledged as complete references.



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Erin Jöan Christiaans

October 2013

## **Acknowledgements**

The author would like to thank the public sector dental staff of the Northern Cape Province who participated in the study, the HOD's of the facilities, the Northern Cape Department of Health, and the administrative staff of the Oral Health Department.



## **Dedication**

- to my Heavenly Father, for His incredible favour on my life;
- to my mother, in her 60<sup>th</sup> year, for instilling the practice of continuous learning in me;
- to my supervisor, Dr Barrie, for continuous guidance, support, encouragement and time;
- to my Elton, for being my present and my future, my everything;
- and to all dental staff members that continue to attempt to provide quality oral health care to those in need, despite being challenged by numerous difficulties.



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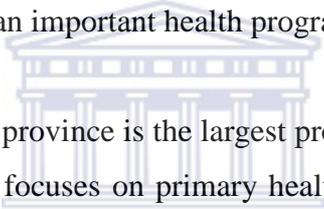
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## **CHAPTER 1. INTRODUCTION**

‘A satisfied worker is a happy worker’, this statement by Robbins (1998), sums up the importance of job satisfaction. Locke (1976), defined job satisfaction as the ‘positive emotional state resulting from the appraisal of one’s job and job experiences’.

There is a perception that oral health services have always been the “orphan” of health care services in the Northern Cape. Management does not seem to care about the working conditions (for the patients or the dental staff), as long as they have statistics to prove that services are being delivered. Budget cuts allow management to take money from the oral health budget for other programmes, as oral health is not seen as an important health programme.



The Northern Cape province is the largest province in South Africa, by area. Oral health mainly focuses on primary health care and pain relief. Dental staff in the public sector is employed at district level, and not at sub-district level. This scenario requires dental staff to travel to rural areas that have working conditions that are not always optimal for dental treatment. Along with a number of challenges, the dental staff (dentists, dental therapists, oral hygienists and dental assistants) sincerely attempts to do their best to provide quality and effective oral health services to the people of the district. It is believed that staff morale and motivation is particularly low in the province, as in the rest of South Africa in the public health sector (Howse, 2000).

This research aims to assess the job satisfaction of dental staff in the public sector in the Northern Cape, as no such previous study has been done in this province.

This study would aim to make management aware of the need and the importance of oral health services and that not only do management need to ‘take care’ of the patients (and statistics) but also the dental staff, as satisfied dental practitioners

are particularly important for successful dental practice and the well-being of patients (Puriene *et al*, 2008a). This study also wants to make management aware of private-sector practices of keeping employees happy by creating the best working environment possible, with satisfactory compensation, to increase service delivery, as this is one of the main focuses of government.

### **The Northern Cape Province**

The Northern Cape province is situated in the northwestern area of South Africa. The province includes the Karoo, the Namakwa flower region, the Kalahari desert, and the capital city of Kimberley, famous for its Big Hole.

The province is enormous, and is the largest province in South Africa, encompassing almost a third of South Africa's total land area. The Northern Cape province covers a surface area of 372 889 km<sup>2</sup>, and has a population of approximately 1,1 million people (StatsSA: Census, 2011). The province is sparsely populated, and consequently also the least populated of all of South Africa's provinces, as it only comprises of 2.2% of South Africa's total population and 30.5% of South Africa's total area (StatsSA: Census, 2011).

The province is bordered by Namibia and Botswana in the north, the Atlantic Ocean in the west, the Western Cape province in the south, and also by the Eastern Cape, Free state and Northwest provinces of South Africa. The Orange River runs partly across the northern border of the Northern Cape, separating South Africa from Namibia.

The following map shows the Northern Cape province in relation to the rest of South Africa's provinces.



Fig. 1. The 9 provinces of South Africa (Nations online, 2013)

The majority of the people in the province speak Afrikaans (53.8%), followed by Setswana (33.1%). English and isiXhosa are the other languages spoken in the province.

Kimberley and Upington have airports, and the excellent road network makes the province’s interior effortlessly reachable from South Africa's major airports, harbours and cities.

The Northern Cape province has 5 district municipalities, which are divided into 27 local municipalities.

The following map demonstrates the various district municipalities of the Northern Cape, shaded in various colours.



Fig. 2: The borders and names of the 5 district municipalities of the Northern Cape Province (Mapsofworld, 2013 – used with permission)

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Agriculture forms an important part of the economy of the province. The Orange river, delivers the base for the agricultural industry, and grapes and other fruits are cultivated in the Orange River Valley, around Upington, for local and export purposes. The Vaalharts irrigation scheme near Warrenton produces wheat, cotton, peanuts, maize, and fruits. The Karoo area involves sheep farming, while the Gordonia area is the core of the Karakul-pelt industry.

Mining contributes 27.6% to the gross regional domestic product. Although diamond mining is on the decrease, it still occurs. Iron-ore mining has been developing in the northeastern area of the province. The province is also rich in copper, manganese, asbestos, fluorspar, marble and semi-precious stones (Local government handbook; Bradshaw *et al*, 2000).

## **Health care in the Northern Cape Province:**

Because the Northern Cape province has the smallest population with the largest surface area in South Africa, it presents numerous challenges for service delivery (Northern Cape Department of Health, 2009).

The vast distances between towns and settlements, the sparsely populated rural areas, the effect of poverty, and the health challenges of trauma, non-communicable disease and communicable disease, contributes to making the Northern Cape a very special place to live and work (Bradshaw *et al*, 2000).

As in the whole of South Africa, approximately 80% of the population of the Northern Cape province makes use of public health services (Department of National Treasury, 2008). The provincial capital, Kimberley, has a population of approximately 300 000 people, with the remainder of the population dispersed in small towns and settlements throughout a large geographical area. The distance between a primary health care facility and the subsequent level of care can easily be up to 200 km within this province. Due to the low population density and the size of the province, equitable access to health services for the public is complex and costly, and such services may appear less effective than in other provinces where economies of scale are more apparent (Northern Cape Department of Health, 2009).

And because of the province's small population and comparatively low budget, the seniority and size of management structures in the health department have historically not been satisfactory to permit it to fulfill its responsibilities. The province has repeatedly received poor Auditor-General reports, which can be attributed to a severe deficit of capacity (finances and skills) of the health department's finance divisions (Northern Cape Department of Health, 2009).

The Northern Cape Department of Health's Report on the Integrated Support Team (2009), also stated that the district health system differs substantially across the province; that support from the provincial level to the districts and primary health care system is inadequate; that staff posts are not filled; and that the

implementation of the Occupation Specific Dispensation (OSD) was regarded as very problematic in the Northern Cape province.

The National Health Care Facilities Baseline Audit (September, 2012), rated the facilities in John Taolo Gaetsewe district municipality, Northern Cape, the lowest overall score in infrastructure (52%) and quality (31%) amongst all districts in South Africa. The Audit recommended that the facilities in this district need to be prioritised for improvement purposes, in order to guarantee that the population receives quality and suitable healthcare services delivered in buildings with adequate infrastructure. The Audit also stated that prioritised attention should be given to facilities without running water and electricity, at the time of the audit. (Department of Health, 2012b)



### **Public Sector Dentistry in the Northern Cape Province**

The Northern Cape province employed 19 dentists, 2 dental therapists, 2 oral hygienists and 38 dental assistants on a full-time basis in 2013. In addition, 12 dentists doing their compulsory year of community service are also allocated to the province. The staff distribution per district within the Northern Cape province, and with population estimates (StatsSA: Census, 2011) of the districts are as follows:

<b>District and Main Dental Facility</b>	<b>Population</b>	<b>Dentists</b>	<b>Dental Therapists</b>	<b>Oral Hygienist</b>	<b>Dental Assistants</b>	<b>Total Dental Staff</b>
1. John Taolo Gaetsewe (Kuruman)	224,799	2 (incl.1 CS)	0	0	6	8
2. Namakwa (Nama Khoi sub-district: Springbok)	115,842 (47,041)	4 (incl. 2 CS)	0	0	3	7
3. Namakwa (Hantam subdistrict: Calvinia)	115,842 (21,578)	3 (incl. 1 CS)	0	0	1	4

District and Main Dental Facility	Population	Dentists	Dental Therapists	Oral Hygienist	Dental Assistants	Total Dental Staff
4. Pixley ka Seme (Emthanjeni sub-district: De Aar)	186,351 (42,356)	3 (incl. 1 CS)	0	0	4	7
5. Pixley ka Seme (Siyathemba sub-district: Prieska)	186,351 (21,591)	1	0	0	2	3
6. Siyanda (Upington)	236,783	5 (incl. 1 CS)	0	0	4	9
7. Frances Baard (Kimberley)	382,086	7 (incl. 5 CS)	2	1	13	23
8. Kimberley Hospital Complex	Referral facility for whole province	6 (incl. 1 CS)	0	1	5	12
Total	1 145 861 (StatsSA: Census 2011)	31 (19 plus 12 CS)	2	2	38	<b>73</b>

Table 1: Staff allocation per district, Northern Cape Province (Ngqoyi, Y, personal communication, 11 February 2013). Note: CS=Community Service Dentist

Staff are appointed at district level and employed on a full-time basis. Two districts within the province, Namakwa and Pixley ka Seme, each have 2 (base) facilities stationed in different towns, Calvinia and Springbok, and De Aar and Prieska, respectively. These are the only dental staff that are allocated per sub-district.

One dentist is currently receiving a full bursary from the Northern Cape Department of Health, and is a full-time student and a Registrar in Orthodontics at the University of the Western Cape.

Community service dentists are allocated to the 7 districts within the province.

A sessional Orthodontist (1 day every 6 weeks) and a sessional Maxillo-facial

Surgeon (2 days every 2 weeks) do sessions at Kimberley Hospital Complex's dental clinic.

No dental technologist is employed and no technical services are available for dental chair breakdowns.

There are no vacant posts on the system of the Northern Cape province for dental staff.

Acknowledging the resource constraints for oral health, the Norms, Standards and Practice guidelines for Primary Oral Health Care has specified the following ratios to serve as a guideline for dental staff appointment.

Ratio	Norms and Standards	Current Provincial Situation
Dentist : Population	1 : 60 000	1 : 36 963
Oral Hygienist : Population	1 : 100 000	1 : 572 930
Dental Therapists: Population	1 : 60 000	1 : 572 930
Clinician (Dentists plus Dental Therapists): Dental Assistant	1 : 1.5	1 : 1.15
Dentist: Dental Technician/ Dental Technologists	15 : 1	31 : 0 (no full-time Dental Technician/Dental Technologists employed by the Dept of Health)

Table 2: Comparison of National Norms, Standards and Practice guidelines for Primary oral health care (Department of Health, 2000) to the current provincial situation (StatsSA: Census, 2011) regarding demography and occupation.

There are differences in the ratios of clinicians to dental assistants in the districts. See Table 3, below.

District or Facility	No. of Clinicians (Dentists plus Dental Therapists)	No. of Dental Assistants	Clinicians : Dental Assistants Ratio
1. John Taelo Gaetsewe (Kuruman)	2	6	1 : 3
2. Namakwa: (Calvinia)	3	1	1 : 0.3
3. Namakwa: (Springbok)	4	3	1 : 0.75
4. Pixley ka Seme: (De Aar)	3	4	1 : 1.3
5. Pixley ka Seme: (Prieska)	1	2	1 : 2
6. Siyanda: (Upington)	5	4	1 : 0.8
7. Frances Baard (Kimberley)	9	13	1 : 2.2
7. Kimberley Hospital Complex	6	5	1 : 0.8
TOTAL	33	38	1 : 1.15

Table 3. Total number of clinicians and dental assistants, and individual clinician:dental assistants ratios per Northern Cape district/sub-district (Ngqoyi, Y, personal communication, 11 February 2013).

Staff need to travel to all facilities in their specific district, using government vehicles or subsidized vehicles, to deliver oral health services, often to remote or rural areas. Not all facilities make use of a mobile dental unit, where treatment can be provided for patients. Thus, often, these remote areas do not have the necessary infrastructure for dental services, or even clinics, and staff make use of community halls or churches to deliver oral health services, respectively. Often dental staff need to stay overnight in towns that are situated far from their base facility, as part of delivering oral health services to distant facilities, and they are then reimbursed for their expenses. When the dental staff travel to an outreach facility, the majority of the time they need to also transport their own instruments and consumables (gloves, masks, gauze, sharps containers etc.).

Limited oral health services are offered to the public, with basic primary healthcare (relief of pain and sepsis in the form of extractions) being the main service that is delivered.

The dental clinic at Kimberley Hospital Complex is the only facility within the province where the dental staff do not travel; they only provide services within the

urban area. This facility is used as a referral facility from all dental facilities in the province. It is also the only facility in the province that offers patients comprehensive oral health services.

Frances Baard is the only district that has an appointed district co-ordinator for oral health services. All other districts have a dentist that has taken the responsibility of Head of Department, and who is accountable for the dental team (staff and clinics/facilities), has administrative duties (including planning and implementation of oral health services within the district) and forms part of the district management team. Kimberley Hospital Complex's Dental clinic has an appointed clinical manager, who is the head of their dental department.

One sub-district of the Namakwa District, Hantam sub-district, at Calvinia, is part of the NHI pilot project, so oral health is piloted in that sub-district. A fully equipped mobile dental unit was provided from the National Department of Health for that sub-district.

As stated by the National Health Care Facilities Baseline Audit (Department of Health, 2012b), 'Attention should be given to ensuring that all facilities provide a comprehensive range of services in the light of current and forthcoming priorities in PHC re-engineering. Dental services are lacking across the board at PHC level, an issue that needs to be addressed, as it is extremely costly for the patients to access these services through the private sector.'

### **The research problem:**

The Northern Cape Provincial Department of Health employs 31 dentists, 2 dental therapists, 2 oral hygienists and 38 dental assistants. With a surface area of 361 830 km<sup>2</sup> and a population of 1 145 861 this province is the largest in the Republic of South Africa (StatsSA: Census 2011).

Approximately 80% of the population of the Northern Cape province makes use of government dental services (Department of National Treasury, 2008). Dental staff are employed at district level, which means these dental staff members need to travel vast distances to serve rural communities. Along with supply shortages, improvisation of supplies, staff shortages and occupational health hazards, the dental team (dentists, dental therapists, oral hygienists and assistants) sincerely try to do their best to provide quality and effective oral health services to the people of the district. Staff morale in the public health services in South Africa is particularly low (Howse, 2000).

It is against this backdrop that the author feels the need to assess the job satisfaction of dental staff in the public sector in the Northern Cape Province.

**Aim:**

To assess job satisfaction of dental staff in the public sector in the Northern Cape Province.



**Objectives:**

- To assess job satisfaction of dentists, dental therapists, dental assistants and oral hygienists within the province
- To determine the factors that affect job satisfaction
- To determine how dental staff respond to and interpret their work experience.

## **CHAPTER 2. LITERATURE REVIEW**

‘A satisfied worker is a happy worker’, this statement by Robbins (1998), sums up the importance of job satisfaction. Locke (1976), defined job satisfaction as the ‘positive emotional state resulting from the appraisal of one’s job and job experiences’. In general terms, job satisfaction can be defined as an individual’s general attitude towards his or her job. A person with a high level of job satisfaction holds a positive attitude towards his or her job whilst a person who is dissatisfied holds a negative attitude about their job (Robbins, 1998). Job satisfaction has been associated with job productivity (Luzzi and Spencer, 2011; Sibbald *et al*, 2003; Robbins, 1998), job performance (Bowling 2007; Luzzi and Spencer, 2011; Shugars *et al*, 1991) and general life satisfaction (Luzzi and Spencer, 2011; Shugars *et al*, 1991). Satisfied employees also tend to be more productive (Harris *et al*, 2008; Syptak *et al*, 1999). Job satisfaction is essential in any profession, as it gives a sense of achievement and fulfillment (Thomas and Valli, 2006).



### **Background:**

Generally, dentists, dental therapists and oral hygienists express a high level of job satisfaction (Luzzi and Spencer, 2011; Gilmour *et al*, 2005; Naidu *et al*, 2006; Gibbons *et al*, 2001; Gibbons *et al*, 2000). Dental auxiliaries expressed lower job satisfaction than dentists for recognition, income, the opportunity to develop professionally and quality of care (Jain *et al*, 2009). Naidu *et al* (2006), found that dental practitioners had lower job satisfaction than oral hygienists, while dentists in the public sector expressed lower levels of job satisfaction compared to dentists working in the private sector (Luzzi and Spencer, 2011). Career satisfaction of female dentists has been found to be lower than dental therapists’ (Gibbons *et al*, 2000). Job satisfaction can be influenced by a variety of factors, which can either increase or decrease job satisfaction. Job satisfaction in dentistry, the measurement of job satisfaction in dentistry and the factors that influence job satisfaction in dentistry, will be discussed.

## **Job satisfaction and dentistry:**

Job satisfaction of dental practitioners, dental therapists and oral hygienists have received considerable attention in the literature. Dentistry has undergone many changes through the years. Changes imposed by the patients' expectations, successive governments, and developments within dentistry. Thus, it is pertinent to evaluate what effects such changes have had on dental career satisfaction. By recognizing what personal and work-related factors are associated with career satisfaction of dental staff, it may be possible to provide guidance to dissatisfied staff (Gilmour *et al*, 2005).

Dentistry is a unique profession. It is described as being a social interaction that is influenced by the specific demands of the clinical practice, exposure to a very sensitive and intimate area of the human body and the emotions and personal characteristics of the dental staff member and the patient (Puriene *et al*, 2008b). Given the continuous social interaction between dental staff and their patients, satisfied practitioners are particularly important for a successful dental practice and the well-being of patients (Puriene *et al*, 2008a). Dentistry is also described as being a stressful occupation, and has been associated with an increased incidence of suicide, alcoholism and ill health among staff members (Gilmour *et al*, 2005; Myers and Myers, 2004; Puriene *et al*, 2008a; Palavi *et al*, 2011).

Shugars *et al* (1990), suggests that job satisfaction is an important barometer for the dental profession and that measures of job satisfaction can be used to identify issues or problems that can be targeted by the profession and dental schools. Job satisfaction can also be used to monitor providers' reactions to the changes in the organization and financing of dental care. Harris *et al* (2008), stated that the job satisfaction of dentists is also of particular interest in England, since there has been a steady shift of dentists from the National Health Service (NHS) into the private sector.

Job satisfaction in dentistry is influenced by:

1) Work characteristics - the actual and perceived features of the job such as the work environment (Luzzi and Spencer, 2011; Gibbons *et al*, 2000; Gibbons *et al*, 2001), work circumstances (Ayers *et al*, 2008a), work hazards (Puriene *et al*, 2007; Leggat *et al*, 2007), work-related stress (Luzzi and Spencer, 2011; Myers and Myers, 2004; Puriene *et al*, 2008b)

2) Worker attributes - emotional well-being (Saari and Judge, 2004), personality factors (Puriene *et al*, 2008b; Mount *et al*, 2006) , and

3) Non-work factors - social interaction, family life (Myers and Myers, 2004; Gibbons *et al*, 2000; Gibbons *et al*, 2001) general life satisfaction (Luzzi and Spencer, 2011; Shugars *et al*, 1991).

Thus, job satisfaction in dentistry is not a single entity, but a complex set of inter-relationships of roles, responsibilities, tasks, incentives, rewards and interactions and dental work (Shugars *et al*, 1991; Luzzi and Spencer, 2011; Harris *et al*, 2008).

### **Measuring job satisfaction in dentistry:**

All the measures used in job satisfaction research have led to greater scientific understanding of employee attitudes. When it comes to job satisfaction, it is possible to be satisfied with some areas of the job while being dissatisfied with others (Luzzi and Spencer, 2011; Herzberg *et al*, 1958). Thus, measurements of job satisfaction have involved the assessment of different elements that contribute to job satisfaction, called job dimensions or facets (Luzzi and Spencer, 2011). Multi-item scales were designed because they possess higher reliability, validity, and precision than single-item scales (Shugars *et al*, 1991). Multi-dimensional scales help to identify specific areas of the job where the satisfaction is low or high. This can provide useful information regarding which areas can be targeted

in intervention programmes to improve job satisfaction (Luzzi and Spencer, 2011; Harris *et al*, 2008; Jain *et al*, 2009).

In dentistry, scales were developed by Yablon and Rosner (1982); Yablon and Maykow (1984); Chapko *et al*, (1986), and Katz (1987), but it did not meet the criteria that measured several dimensions, possessed an overall job satisfaction sub-scale and demonstrated methodological soundness that was needed to measure job satisfaction in dentistry (Shugars *et al*, 1991). While existing instruments did not fully meet the criteria, they provided an excellent foundation for the development of a comprehensive measure of dentists' job satisfaction (Shugars *et al*, 1991). Shugars *et al* (1991), developed the Dentist Satisfaction Survey (DSS) that meets such criteria.

The DSS assesses salient beliefs about aspects of a dentist's job, while items were constructed as statements of opinion and administered using a five-point Likert-type scale format for response (strongly agree, agree, uncertain, disagree, strongly disagree). The final set of satisfaction scales consists of quality of life and overall job satisfaction scales for 11 specific dimensions of job satisfaction: 1) staff, 2) income, 3) professional time, 4) professional relations, 5) patient relations, 6) professional environment 7) practice management, 8) personal time, 9) work stress, 10) respect, and 11) delivery of care.

### **Type of health care system:**

Levels of job satisfaction of dental staff are influenced by the type of health care system they work for (Luzzi and Spencer, 2011; Naidu *et al*, 2006; Bergstrom *et al*, 2010; Gilmour *et al*, 2005; Luzzi *et al*, 2005; Hopcraft *et al*, 2009). Thus, the differences between public and private dentists have been reported internationally.

Dental staff working in the public sector expressed dissatisfaction of their job in a number of areas. Public sector dentists did not feel they are adequately compensated compared to private dentists, given they have the same education or training and experience (Luzzi and Spencer, 2011; Luzzi *et al*, 2005), and the

services they can provide (Luzzi *et al*, 2005). Public service dentists reported low mean scores for compensation, autonomy, relationships with staff and patients, community, and resources (Luzzi and Spencer, 2011; Luzzi *et al*, 2005). Public sector dentists feel limited in their ability to offer services and treatment (Luzzi and Spencer, 2011; Luzzi *et al*, 2005). This can be due to dependence on what the public sector are able to provide. Also, public sector dentists have limited choices (with regard to choosing their patient type, who they work with, the working environment) and thus the locus of control is severely constraint (Luzzi and Spencer, 2011; Harris *et al*, 2008). Their work is often repetitive because they do not necessarily have clinical autonomy (Luzzi and Spencer, 2011).

This lack of autonomy and resources limitations may affect the dentist-patient relationship (Luzzi and Spencer, 2011). Often public service dentists feel frustrated by not being able to treat the patient to their best clinical judgment, and patients often also become frustrated by the limitations of the care they receive in the public system (Luzzi and Spencer, 2011; Gilmour *et al*, 2005; Luzzi *et al*, 2005). Also, developing a good dentist-patient relationship takes time, time which public service dentists do not necessarily have, as most patients accessing public dental services do so for emergency dental care (Luzzi and Spencer, 2011; Gilmour *et al*, 2005). In Australia, public dental services provide care to socio-disadvantaged patients, and many patients that present to public dental services have complex social health and dental needs (Luzzi and Spencer, 2011). Public service dentists can feel overwhelmed by the needs of their patients and this may affect the dentist-patient relationship (Luzzi and Spencer, 2011). Not being able to develop a good dentist-patient relationship can lead to reduced job-satisfaction (Luzzi *et al*, 2005).

Newton (2008), commented that these findings are useful to demonstrate that clinical freedom, autonomy, respect and personal development are key dimensions of the working lives of health care professionals. In the United States, it was reported that inadequate staffing levels can reduce quality of work and constrain one's ability to provide quality care (AFT Healthcare, 2002).

Hopcraft *et al* (2009), found in Victoria, Australia, that dentists working in the public sector stated that the main reasons why they entered the public sector was to work in a community-based setting in a supportive and mentored environment, and a desire to help those in need. Public sector dentists' main reasons for leaving was due to poor remuneration, frustration with administrative policies, lack of clinical experience and lack of professional autonomy. Shortages in the workforce in the public sector are due to retention issues.

In a study of Danish and Swedish dentists, Danish public dentists ranked higher in overall job satisfaction when compared to Swedish public dentists. This could be because their healthcare systems differ. Swedish public dentists treat a similar patient group as private dentists, while Danish public dentists' treatment is limited to treating children, the elderly and disabled patients (Bergstrom *et al*, 2010).

In the UK, overall job satisfaction of dentists was higher among those in private practice, those in group practices and those in urban locations (Gilmour *et al*, 2005). Dentists who provide most of their treatment outside the NHS expressed significantly higher scores for overall professional satisfaction, and higher quality of life compared to those who provide most of their services under the NHS (Gilmour *et al*, 2005; Harris *et al*, 2008). Dentists also agree that working for the NHS is increasingly more stressful (Gilmour *et al*, 2005; Myers and Myers, 2004). Besides having problems with remuneration, income is not the main reason for leaving the NHS. The dentists were more concerned that it has become increasingly difficult to provide comprehensive high quality dental care to appropriate standards within the NHS (Harris *et al*, 2008).

Private dentists have a higher possibility of being satisfied with their job as compared to dentists working in both the private and public sector (Puriene *et al*, 2008b). Job satisfaction among dental practitioners is known to be significantly associated with a shift toward private work (Gilmour *et al*, 2005; Harris *et al*, 2009).

Staff morale in the public health services in South Africa is particularly low (Howse, 2000). Doctors in a public hospital showed below-average scores for job satisfaction, indicating that the job itself was no longer fulfilling (Thomas and Valli, 2006).

In South Africa, the policy makers and decision makers, who are an integral part of the provincial health system, are often located at provincial and/or national levels (Thomas and Valli, 2006).

### **Health of dental staff:**

Health care has long been described as a high stress occupation due to the combination of exposure to hazardous diseases, difficult working conditions, human suffering and ability to affect human life (Myers and Myers 2004; Puriene *et al*, 2008a; Leggat *et al*, 2007; Jain *et al*, 2009). The health of dentists can be significantly influenced by the unique working conditions in dentistry (Puriene *et al*, 2008a; Puriene *et al*, 2008b). The majority of dentists in the studies by Puriene *et al*, (2007; 2008a) stated that the dental profession has an influence on their general health. Research has indicated that dentists report more severe and more frequent health problems than other high risk professionals (Szymanska, 2002). The dental profession causes more stress than any other profession, due to the nature and working conditions of the dental surgery (Luzzi *et al*, 2005; Myers and Myers, 2004). Dentists characterize their profession as demanding and difficult, often requiring physical self-sacrifice and more patience than what they are able to provide (Puriene *et al*, 2008a). Dentistry is recognized to be a mentally and physically demanding profession (Puriene *et al*, 2008b; Palavi and Rajkumar 2011).

The different ways of organizing human service in dentistry have been shown to affect the human service provider (Leggat *et al*, 2007; Puriene *et al*, 2008b; Myers and Myers, 2004; Ayers *et al*, 2008a). This has been revealed in health problems, stress and job dissatisfaction (Myers and Myers 2004; Puriene *et al*, 2008b;

Bergstrom *et al*, 2010). Stress causes the greatest dissatisfaction for dentists (Gilmour *et al*, 2005).

Job dissatisfaction has been related to perceptions of control over work practices and work pressure, with research of dental practitioners in the US reporting that low job satisfaction is related to job-related stress (Newton and Gibbons, 2001). Furthermore, the quality of care that is provided may also be affected (Myers and Myers, 2004). Stress is thought to be a result from many work-related sources (Myers and Myers, 2004; Leggat *et al*, 2007). Myers and Myers (2004), also found that work-related stressors contribute greatly to overall stress, and that factors in the dental surgery are responsible for almost half the overall stress in a general dentist's life. This highlights the stressful nature of NHS dentistry. Work related stressors are time and scheduling pressures (Myers and Myers, 2004; Palavi and Rajkumar, 2011; Harris *et al*, 2009), understaffing (Thomas and Valli, 2006), inadequate resources (Thomas and Valli, 2006), lack of control (Thomas and Valli, 2006), managing infectious patients (Thomas and Valli 2006), poor career advancement opportunities (Thomas and Valli 2006; Jain *et al*, 2009), inadequate remuneration (Myers and Myers, 2004; Thomas and Valli, 2006; Ayers *et al*, 2008a), job dissatisfaction (Myers and Myers, 2004), health care system (Myers and Myers, 2004; Ayers *et al*, 2008a), long working hours (Myers and Myers, 2004), financial issues (Moller and Spangenberg 1996; Leggat *et al*, 2008) and patient factors (Thomas and Valli 2006; Moller and Spangenberg 1996).

Many dentists also suffer from 'burn-out' (Puriene *et al*, 2008b; Palavi and Rajkumar, 2011). Burnout refers to a syndrome of physical and emotional exhaustion (Thomas and Valli 2006).

A variety of deleterious work-related environmental factors affect the physical and mental health of dentists (Bergstrom *et al*, 2010; Berthelsen *et al*, 2010; Puriene *et al*, 2008a). Occupation-related diseases may result from many contributing causes, such as changes in the service and administrative sectors or

workforce, changes in legislation and/or labor market, aggravating social and economic conditions or implementation of new technologies (Puriene *et al*, 2007). Although the incidence of occupational diseases decreased after the implementation of medical preventative measures (such as vaccinations) for professionals, understanding of ergonomics and the acquisition of modern equipment, mental impairment still dominates among occupational disorders (Puriene *et al*, 2007). Mental impairment limits the dentist's ability of coping with everyday challenges, interpersonal relationships, time and output tasks (Adler *et al*, 2006). Cumulative stress limits efficiency and productivity of a health care professional (Yee *et al*, 2005). Occupational hazards such as interactions with patients, financial pressure and physical strain relate negatively to psychological well-being of a dental practitioner (Myers and Myers, 2004).

Dentists also experience occupation-related health problems (Puriene *et al*, 2008a; Leggat *et al*, 2007; Puriene *et al*, 2007; Szymanska, 2002). These include percutaneous exposure incidents (PEI) (Leggat *et al*, 2007); exposure to infectious diseases, radiation, dental materials and noise (Leggat *et al*, 2007); musculoskeletal disorders especially backache (Puriene *et al*, 2008a; Leggat *et al*, 2007; Szymanska, 2002); dermatitis and respiratory disorders (Leggat *et al*, 2007); eye injuries (Leggat *et al*, 2007), psychological problems (Myers and Myers, 2004; Puriene *et al*, 2008b, Leggat *et al*, 2007), headache (Puriene *et al*, 2008b); and fatigue (Puriene *et al*, 2008b). PEI remains a particular concern, due to the almost constant risk of exposure to serious infectious agents. From an occupational health viewpoint, PEI is the mechanism with the highest risk for transmitting blood-borne infections between patients and health workers (Leggat *et al*, 2007).

Obesity or being overweight (Myers and Myers, 2004), smoking (Myers and Myers, 2004), alcohol and drug abuse (Myers and Myers, 2004; Palavi and Rajkumar, 2011) among dentists were also reported. Morbidity in dentists is often occupation-related (Leggat *et al*, 2007).

Stress-coping strategies that dentists use include sports and alcohol, interaction with people and spending money (Palavi and Rajkumar, 2011). Dentists also reported that forgetting about work was also a strategy used to cope with stress (Ayers *et al*, 2008a).

### **Gender:**

Although female dental staff describe their job as satisfactory (Gibbons *et al*, 2000; Gibbons *et al*, 2001; Palavi and Rajkumar, 2011; Ayers *et al*, 2008b) certain elements need to be considered for their job satisfaction. The working hours of females do not significantly differ from males, until they have children (Palavi and Rajkumar, 2011). Female dental staff are more likely to take career breaks (Palavi and Rajkumar, 2011; Gibbons *et al*, 2000; Gibbons *et al*, 2001) and more likely to work part-time (Luzzi and Spencer, 2011; Gibbons *et al*, 2001; de Wet *et al*, 1997). The reasons given are due to family responsibilities (Luzzi and Spencer, 2011; Gibbons *et al*, 2001).

Female dentists feel there is a greater lack of patient appreciation and feel more underrated by patients (Myers and Myers 2004). A large proportion of females were working in the public service (state clinics or universities) (Hopcraft *et al*, 2009), and are less likely to be a partner or sole proprietor in a general dental practice (Luzzi and Spencer, 2011; Palavi and Rajkumar, 2011).

Significantly more females than males reported that the dental profession is hazardous to their general health (Puriene *et al*, 2007), including increased self-perceived mental health (Puriene *et al*, 2008b), with more awakenings at night than males (Puriene *et al*, 2007), due to the dental occupation.

Career satisfaction of female dentists is found to be lower than dental therapists (Gibbons *et al*, 2000), although all participants in this study were female.

Male dentists had a higher education, additional degrees and specialization than females, which can be explained by the additional responsibilities of the female

with the household and family (Newton *et al*, 2000; Stilwell *et al*, 2003).

### **Personality traits:**

The social interactions of dentists are influenced by the unique work setting and by personal characteristics (Puriene *et al*, 2008b). Saari and Judge (2004), state that employees have viewpoints or attitudes about different aspects of the job itself, their careers, and the organization for which they work. The most focal employee attitude is job satisfaction. It is believed that core self-evaluation is the most important personality trait to predict job satisfaction.

From a conceptual perspective and based on inductive reasoning, from Locke's definition of job satisfaction, it follows that individuals who are dissatisfied with their jobs would be more likely to engage in counter-productive behaviours at work (Mount *et al*, 2006). Personality traits differentially predict counter-productive behaviours at work. The employees' attitude about their jobs explains these personality-behaviour associations. An aspect of behaviour that represents one component of employees' work performance is counter-productive behaviour (Mount *et al*, 2006). The negative psychological impact of workplace deviance can lead to higher rates of absenteeism, reduced employee morale and lower productivity (Mount *et al*, 2006).

Saari and Judge (2004), have also stated that culture and/or country can also influence employee attitudes, just as the type of job a person has. Culture and/or country may influence how employees are valued and viewed (Jackson, 2002).

Thus, the dental staff's personality traits relate to the job itself, job productivity and performance, and in turn, job satisfaction.

In conclusion, autonomy, adequate resources, adequate compensation, respect, opportunity for advancement, flexi hours and minimal administrative responsibilities are known to improve job satisfaction of dental staff. Public dental services seem to decrease the job satisfaction of dental staff, because of work-related issues. Policy makers should not only look at service delivery, but

how to create a working environment that is optimum for the dentists, dental therapists, oral hygienists, and dental assistants. By identifying areas of concern that affect job satisfaction, these specific areas can be improved. By increasing the job satisfaction of the dental staff, the staff morale can be improved. This will lead to increased productivity and quality of care. Job satisfaction should be used to motivate and modify dental staff's practice styles. Research findings about job satisfaction can be implemented to increase retention rates of dental staff in the public sector.

### **CHAPTER 3. METHODOLOGY**

#### **3.1 Definitions of terms**

***Job satisfaction:*** The 'positive emotional state resulting from the appraisal of one's job and job experiences' (Locke, 1976).

***Urban Area:***

“The definition of ‘urban’ varies from country to country, and, with periodic reclassification, can also vary within one country over time, making direct comparisons difficult. An urban area can be defined by one or more of the following: administrative criteria or political boundaries (e.g., area within the jurisdiction of a municipality or town committee), a threshold population size (where the minimum for an urban settlement is typically in the region of 2,000 people, although this varies globally between 200 and 50,000), population density, economic function (e.g., where a significant majority of the population is not primarily engaged in agriculture, or where there is surplus employment) or the presence of urban characteristics (e.g., paved streets, electric lighting, sewerage).” (UNICEF, 2012).

For this thesis, an urban area will be a town with more than 50 000 inhabitants.

**Rural Area:** Many definitions exist and the actual definition can become very complicated (Kok and Collison, 2006). For the purposes of this study, a rural area will be considered to be an area with less than 50 000 inhabitants.

**Head of Department (HOD):** A dental staff member that is the head of a dental team within the specific district, and that is responsible for that dental team (staff and clinics/facilities).

**Clinical manager:** A dental staff member that is the head of the facility regarding clinical matters.

**Community Service Dentist:** A dentist doing his/her compulsory year of community service after graduating, before being registered by The Health Professions Council of South Africa as a Dentist (General Practitioner: independent practice).

‘Any person registering for the first time in a category of registration listed in the regulations made in terms of this Act shall perform remunerated community service in health care for a period of one year in terms of the regulations contemplated in subsection (2) and shall, on the completion of such service, be entitled to practice the profession’ (HPCSA, Act 29 of 2007).

**Occupation Specific Dispensation (OSD):**

‘Occupation Specific Dispensation means the revised salary structures that are unique to each identified occupation in the public service. These unique salary structures will:

be centrally determined through grading structures and broad job profiles,

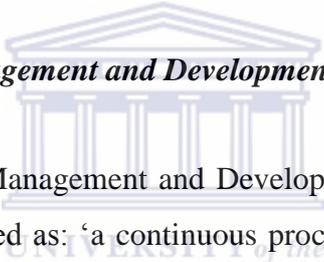
develop career pathing opportunities for public servants based on

competencies, experience and performance,

provide for pay progression within the salary level,

consolidate certain benefits and allowances into the salaries of employees.

The interval between notches in the revised remuneration structures will provide for significant increments between notches. The frequency of the pay progression within scope of the scales will be determined for each occupational category as it will be informed by the needs of the specific occupation. Such progression within scales will be subject to certain prescribed levels of performance. The salaries of certain occupational categories will, where applicable, be aligned to the market.’ (South African Government Information, 2007).



***Staff Performance Management and Development System (SPMDS):***

The Staff Performance Management and Development System is a public sector system that can be defined as: ‘a continuous process of ensuring that employees know exactly what is expected of them, are properly trained or equipped to be able to do what is expected of them, and produce the results required of them. The process obviously involves performance appraisal and is results-driven. It focuses more on what the employee has achieved in terms of quantity and quality (as measured against pre-determined performance standards) rather than on isolated activities’ (Western Cape Department of Education, 2013). It is referred to in some Government departments as the Staff Performance and Management System (SPMS).

***National Health Insurance (NHI):***

‘An approach to health system financing that is structured to ensure universal access to a defined, comprehensive package of health services for all citizens, irrespective of their social, economic and/or any other consideration that affects

their status.

The National Health Insurance commonly referred to as NHI will ensure that everyone has access to, appropriate, efficient and quality health services. It will be phased-in over a period of 14 years. This will entail major changes in the service delivery structures, administrative and management systems. The NHI is intended to bring about reform that will improve service provision. It will promote equity and efficiency so as to ensure that all South Africans have access to affordable, quality healthcare services regardless of their economic status.’ (Department of Health, 2012a).

### **3.2 Study population**

The target population consisted of all dental staff (dentists, dental therapists, oral hygienists, dental assistants and community service dentists) rendering oral health services in the public sector in the Northern Cape, and that were employed on a full-time basis by the Northern Cape Provincial Department of Health, for the period of January to June 2013. Dental staff employed by the National Defence Force, which offers dental services to its members within the boundaries of the Northern Cape were excluded.

### **3.3 Sample size**

Instead of drawing a sample, all of the staff members were included. The 73 individuals questioned comprised 31 dentists, 2 dental therapists, 2 oral hygienists and 38 dental assistants. They were all employed by the Northern Cape Department of Health in 2013. Sixty-two of the 73 dental staff members took part in the study. One further questionnaire was discarded as it did not contain the necessary demographic and occupational information. The sample, therefore, consisted of 61 dental staff members, who included 29 dentists, 1 dental therapist, 2 oral hygienists, and 29 dental assistants. Twelve community service dentists were included among the 29 dentists.

### **3.4 Generalizability**

The findings of this study could be generalized to all dental staff employed by the Northern Cape Department of Health. Generalizability was limited, as conditions in the Northern Cape could not be assumed to be identical to that in the rest of the country but there may be many similarities and policies.

### **3.5 Study design**

The research was a cross-sectional descriptive study with an analytical component, using a self-administered structured questionnaire.

- a) A two-part questionnaire was designed, with closed-ended and open-ended questions (Appendix 1).
- b) A pilot study of the two-part questionnaire was conducted.
- c) The findings of the pilot study were reviewed, and no amendments to the questionnaire were needed.
- d) The questionnaires were distributed to the participants.
- e) The data was collected.
- f) The data was captured into an Excell spreadsheet.
- g) The results were analyzed using Excell and Epi-Info and interpreted.
- h) Telephonic interviews were conducted with the HOD's of the different district facilities.
- i) The information of these telephonic interviews were analyzed and interpreted.

### **3.6 Data collection**

The questionnaire (see Appendix 1) used was a modified version of Shugars' Dental Satisfaction Survey of 1991, which studied professional satisfaction among Californian dentists. The questionnaire also consisted of 3 open-ended questions.

a) Relevant questions pertaining to job satisfaction of dental staff were selected from Shugars' Dental Satisfaction Survey, by the author.

b) A pilot study was undertaken prior to the study, with the questionnaire distributed among dentists and dental assistants of the Northern Cape province, to determine if the questions on the questionnaire were relevant and understandable. The pilot questionnaires were faxed and emailed to the participants. The questionnaires were returned to the author directly by fax and email.

c) After the answers and questions of the questionnaires of the pilot study were analysed, the questionnaire was found to be adequate as no amendments to the questionnaires were required. The questionnaires were distributed among all the dental staff in the public sector in the Northern Cape by fax and by e-mail.

d) The questionnaires were returned by the participants during May and June 2013, directly to the author by fax, email or post.

e) Telephonic interviews pertaining to the working circumstances of the dental staff were conducted with all the HOD's of the dental facilities of the different districts, mainly to check staff numbers and number of facilities.

f) Data was captured in Excel, analysed using Excel and EpiInfo and presented in tables and graphs that show the levels of satisfaction, stratified by occupation, location and length of service to investigate the strength of association between satisfaction levels and these variables.

### **3.7 Ethics**

Permission to perform the research was granted from the Senate Research Committee of the University of the Western Cape (Appendix 2). A letter requiring permission to do research within the province was sent to the Head: Oral Health in the Northern Cape as well as to the Head of the Department of Health, Northern Cape Province. The full thesis protocol was submitted to the Provincial Health Research and Ethics Committee (PHREC). Confirmation of acceptance of the letters was received by the Northern Cape Department of Health, and approval was granted via the PHREC (Appendix 3).

Participants were provided with an information sheet informing them of the research project (Appendix 4). The information sheet also has a section that asked the staff members for consent to participate in the study. The signed consent forms were returned separately from the questionnaires to ensure confidentiality and anonymity.

No information was recorded on any of the questionnaires that could make the identification of the person completing it known to the researcher. The forms were treated as confidential and securely held by the researcher. No personal information regarding the participants was divulged.

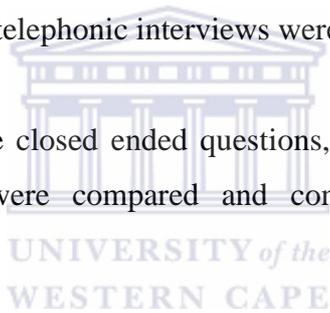
The author also made herself available for the participants to contact her with any questions regarding the study.

### **3.8 Validity and Reliability**

The questionnaire was a modified version of Shugars' Dental Satisfaction Survey of 1991 and its validity and reliability have been tested and it has been used before in other studies (Shugars *et al*, 1991).

### **3.9 Analyzing and interpreting results**

1. The questionnaires were analyzed by hand, to check if all relevant information was completed. One questionnaire was rejected, as previously mentioned, because it did not contain details of the occupation, area and length of service of that participant.
2. Data from the questionnaires were captured into an Excel<sup>®</sup> spreadsheet.
3. The responses to the open-ended questions were interpreted and basic associations were drawn between different concepts. Direct quotes from participants were acquired for further qualitative analysis.
4. Information from the telephonic interviews were also analysed.
5. Information from the closed ended questions, open-ended questions and the telephonic interviews were compared and contrasted, where possible, and conclusions were drawn.



## **CHAPTER 4. RESULTS**

The study sample included 61 dental staff members, which consisted of 29 dentists (47.5%), 29 dental assistants (47.5%), one dental therapist (1.49%) and two oral hygienists (3.2%). One questionnaire had to be discarded, as the relevant Demographic and Occupational details had not been completed. Thus, a response rate of 84.9% (61 responses from 73 staff members) was achieved.

Some of the questions were left blank by some of the participants, and thus, for that particular question, the incomplete return for that participant was excluded from the analysis.

### **4.1 Demography and Occupation**

Forty-one participants were female (67%) and 20 (33%) were male. The males consisted of 1 dental therapist, 15 dentists and 4 dental assistants.

The average age of the participants was 32.5 years and the age range was from 22 to 55 years of age.

The participant with the least experience in a specific occupation in government service was a dentist with 2 months experience, while the participant with the most experience in a specific occupation in government service was a dental assistant with 28 years experience. For the analysis, the participants were grouped into two categories: long service (5 years and longer) and short service (less than 5 years). Thirty-eight participants (62%) were categorized as short service, and 23 participants (38%) were categorized as long service. Twelve community service dentists (41% of the dentists), who had only six months' experience, also participated in the study.

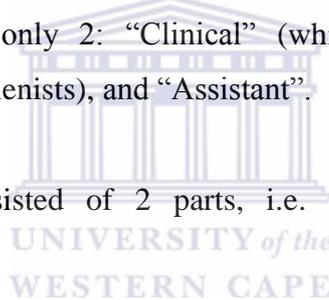
Participants working at Kimberley Hospital Complex (11/61 = 18%) are the only participants working in an urban area, and providing dental services only within

an urban area. Participants working in Frances Baard District (Kimberley) and Siyanda District (Upington) are the only 2 facilities that provide dental services to urban communities and rural communities. All the other dental facilities (John Taolo Gaetsewe District, Namaqua District, Pixley ka Seme), are situated in, and provide dental services to, only rural communities.

Since there were only 61 participants, the frequencies in some of the cells in the tables were too small which could have concealed statistically significant details. In these cases, the tables were collapsed to 2 (bivariate) categories: “Agree” which included “Agree Strongly” and “Agree” and “Disagree” which included “Unsure”, “Disagree” and “Disagree Strongly”.

Since there were so few oral hygienists and dental therapists, the staff categories were also reduced to only 2: “Clinical” (which included Dentists, Dental Therapists and Oral Hygienists), and “Assistant”.

The questionnaire consisted of 2 parts, i.e. closed-ended and open-ended questions.



## **4.2 Closed-ended questions**

### 4.2.1 Working environment

#### **Enjoyment of Working Environment**

When asked whether they enjoyed their work environment, 60% of the participants Agreed Strongly or Agreed that they enjoyed their work environment, whereas 26% Disagreed or Disagreed Strongly. One individual did not answer this question, so that person’s response was excluded. The replies differed by occupational class with Clinical Staff (Dentists, Dental Therapist and Oral Hygienists) generally enjoying their work environment more than Dental Assistants (see Table 4 and Fig 3).

	Agree Strongly		Agree		Unsure		Disagree		Disagree Strongly		Total	
	n	%	n	%	n	%	n	%	n	%	N	%
Assistant	1	4%	12	43%	5	18%	7	25%	3	11%	28	100%
Clinical	4	13%	19	59%	3	9%	4	13%	2	6%	32	100%
Total	5	8%	31	52%	8	13%	11	18%	5	8%	60	100%

Table 4. Responses of Staff regarding enjoying the work environment

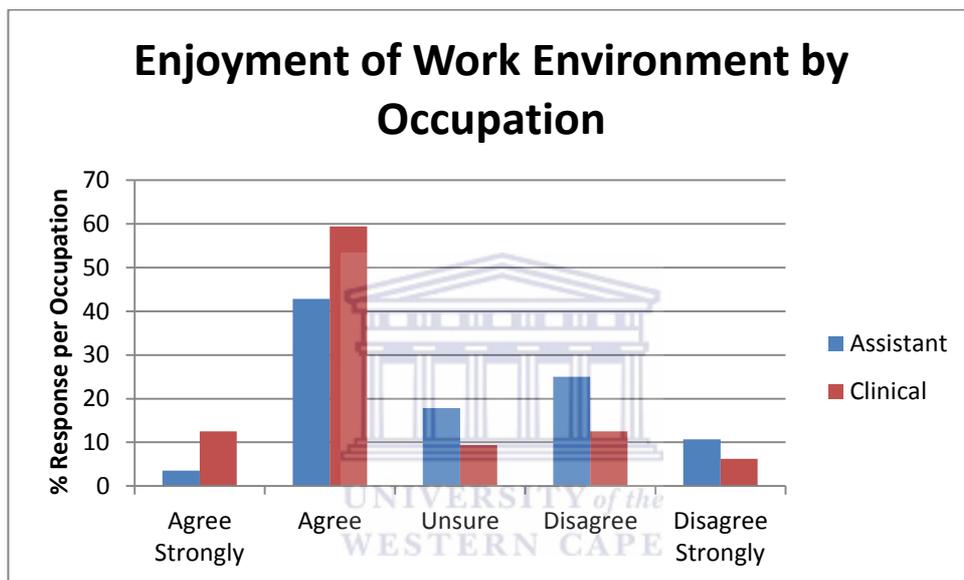


Figure 3. Proportion of staff categories that enjoy their Work Environment.

When the bivariate responses are analyzed, (table “collapsed” as explained above), the clinical staff were 1.6 times more likely to enjoy their working environment than the assistants (RR=1,547, p=0.04).

### Teamwork and support

Eighty percent of participants Agreed that the staff at the clinic eases their task by working as a team, and 71% of participants Agreed that they have the support of their staff at all times (See Table 5 and Fig 4.). The differences between clinical staff and assistants were not statistically significant, and neither were the differences between staff with short and staff with long service.

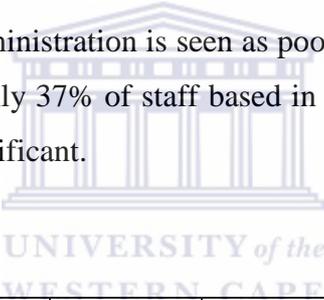
## Staffing

Forty-six percent of the participants Disagreed or Disagreed Strongly that their dental clinic was understaffed, whilst 14% were unsure. The difference between clinical staff and assistants was not statistically significant (See Table 5 and Fig 4.).

## Communication with Administration.

Fifty-six percent of participants Agreed Strongly or Agreed that the communication with their administrator is poor, while 15% were unsure (See Table 5 and Fig 4.). However, the assistants were twice as likely to have a problem with communication with the administration than the clinical staff (RR=2.07, p=0.0019).

Communication with administration is seen as poor by 63% of staff based in rural facilities, compared to only 37% of staff based in urban areas. These differences were not statistically significant.



	Agree Strongly		Agree		Unsure		Disagree		Disagree Strongly		Total	
	n	%	n	%	N	%	N	%	n	%	n	%
Team work	14	23%	34	57%	1	2%	8	13%	3	5%	60	100%
Support of Staff	14	23%	29	48%	9	15%	8	13%	0	0%	60	100%
Unit is Under-staffed	10	18%	12	21%	8	14%	18	32%	8	14%	56	100%
Poor Communication with Administration	15	25%	18	31%	9	15%	12	20%	5	8%	59	100%

Table 5. Responses to Teamwork questions.

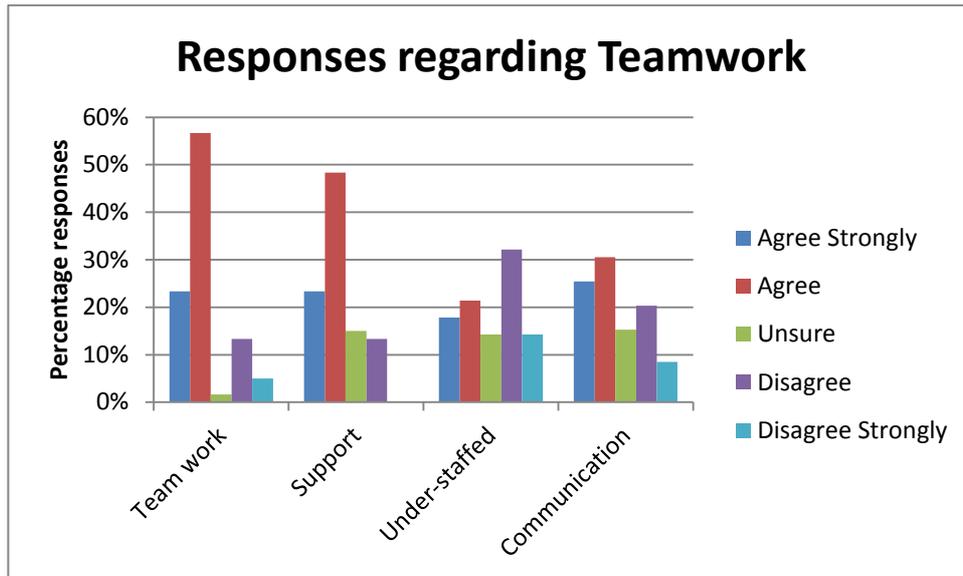


Fig 4. Responses to the questions on Teamwork

### Dental equipment

Fifty-six percent of the participants Disagreed or Disagreed Strongly that their dental equipment is of good standard, whilst 10% were unsure (See Table 6 and Fig 5.). All the staff in the urban areas (100%) agreed that their equipment is of a good standard, but only 27% of staff in rural areas and 13% of staff who worked in both rural and urban areas thought their equipment was of a good standard. These differences were however, not statistically significant.

### Safe working environment

Forty-eight percent of participants Disagreed or Disagreed Strongly that their clinic was a safe working environment, whilst 16% were unsure (See Table 6 and Fig 5.). Of the assistants, 76% Disagreed that their clinics were a safe working environment, as opposed to only 53% of the clinical staff. The assistants were almost twice as likely to be dissatisfied with the safety of their working environment than the clinical staff (RR=1.94, but this difference was not statistically significant).

When analysed by location, 82% of the staff in the urban area felt safe in their

working environment, as opposed to 27% of staff in rural areas; and 25% of the staff working in both urban and rural areas. This difference was not statistically significant.

### Workload

Forty-four percent of participants Agreed Strongly or Agreed that they see too many patients per day, whilst 36% Disagreed or Disagreed Strongly, and 20% were unsure (See Table 6 and Fig 5.). The assistants were more than twice as likely to feel they saw too many patients per day than the clinical staff (RR=2.62, p=0.0015).

When analysed by area, only 18% of the staff in the urban area felt they treated too many patients per day, as opposed to 50% of the staff in the other areas who felt that way. This difference was not statistically significant.

	Agree Strongly		Agree		Unsure		Disagree		Disagree Strongly		Total	
	n	%	n	%	N	%	n	%	n	%	n	%
Equipment is good	6	10%	15	25%	6	10%	14	23%	20	33%	61	100%
Safe environment	7	11%	15	25%	10	16%	18	30%	11	18%	61	100%
Too many patients	8	13%	19	31%	12	20%	21	34%	1	2%	61	100%

Table 6. Responses to questions about working conditions.

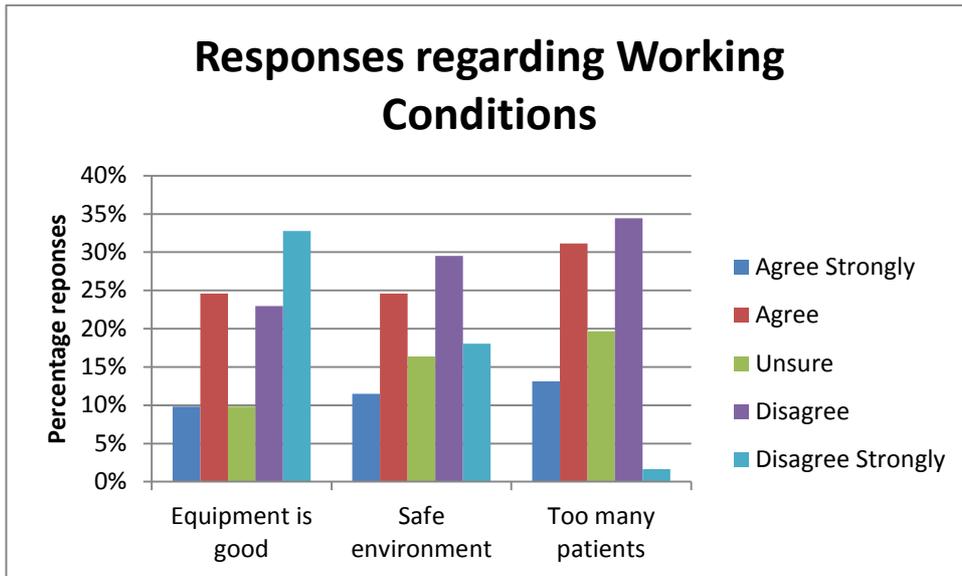


Fig. 5. Responses regarding working conditions

#### 4.2.2 Income and Job Security

##### Income

Forty-six percent of participants Agreed Strongly or Agreed that their income is fair for the work they do, whilst 44% Disagreed or Disagreed Strongly, and 10% were unsure (See Table 7 and Fig 6.). The assistants were nearly 3 times more likely to be dissatisfied with their income than the clinical staff (RR=2.72, p=0.001).

##### Salary versus Job satisfaction

Fifty-one percent of participants Agreed Strongly or Agreed that the salary they earn is not as important as the satisfaction gained by serving the public, whilst 25% were unsure (See Table 7 and Fig 6.). However, 67% of the assistants agreed that their salary was not as important as the satisfaction gained by serving the public, as opposed to only 38% of the dentists who felt this way. The assistants were 1.7 times more likely to feel this way than the clinical staff (RR=1.78, p=0.025).

### Incentives

Forty-six percent of participants Agreed Strongly or Agreed that a public staff member has no incentive for improving performance, while 13% were unsure (See Table 7 and Fig 6.). No statistically significant differences were found between the clinical staff and the assistants in this regard.

### Ability to live comfortably

Fifty-four percent of participants Agreed Strongly or Agreed that their income allows them to live comfortably and provide for their needs, while 37% Disagreed or Disagreed Strongly (See Table 7 and Fig 6.). However, only 27.6% of the assistants felt their income allows them to live comfortably and provide for their needs, compared to 78.1% of the clinical staff. The assistants were nearly three times more likely to disagree with this issue than the clinical staff (RR=2.83, p=0.0001).

	Agree Strongly		Agree		Unsure		Disagree		Disagree Strongly		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
Income Fair	6	10%	22	36%	6	10%	16	26%	11	18%	61	100%
Salary less important than Job Satisfaction	7	12%	23	39%	15	25%	13	22%	1	2%	61	100%
No Incentives	10	16%	18	30%	8	13%	20	33%	5	8%	61	100%
Live comfortably	3	5%	30	49%	5	8%	16	26%	7	11%	61	100%

Table 7. Responses to questions regarding income.

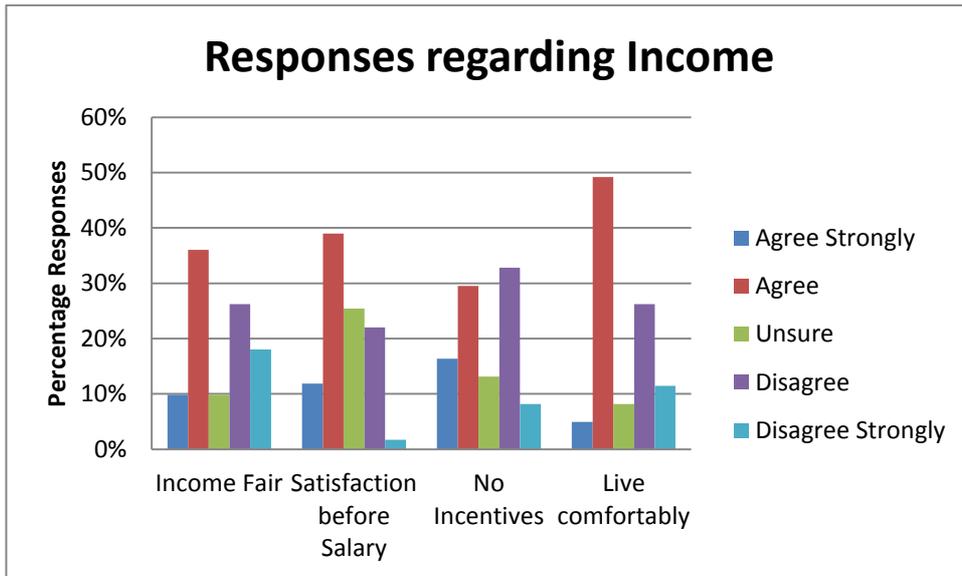


Fig 6. Responses to questions regarding Income.

#### 4.2.3 Sense of achievement

##### **Adequate time for personal life**

Seventy-seven percent of participants Agreed Strongly or Agreed that their job allows them adequate time for their personal life (See Table 8 and Fig 7.). Again, there was a difference in the response from the Clinical staff, who were 2.3 times more likely to agree with this, than the Assistants (RR=2.36, p=0.015).

##### **Too tired after work**

Fifty-nine percent of participants Disagreed or Disagreed Strongly that they are too tired to do anything after hours, while 36% Agreed Strongly or Agreed (See Table 8 and Fig 7.). The clinical staff, with 78% of them agreeing to this statement, were more likely to be too tired after hours than the assistants (RR=1.33, p=0.028).

##### **Contribution to the community**

Eighty percent of participants Agreed Strongly or Agreed that their job allows them to make a contribution to their community (See Table 8 and Fig 7.). Ninety-one percent of the clinical staff agreed with this as opposed to 67.9% of the

assistants, but the difference was not statistically significant.

	Agree Strongly		Agree		Unsure		Disagree		Disagree Strongly		Total	
	n	%	n	%	n	%	n	%	n	%	N	%
Adequate personal time	4	7%	43	70%	8	13%	5	8%	1	2%	61	100%
Too tired after hours	6	10%	16	26%	3	5%	34	56%	2	3%	61	100%
Make a contribution	11	18%	37	62%	2	3%	8	13%	2	3%	60	100%

Table 8. Responses to questions regarding sense of achievement.

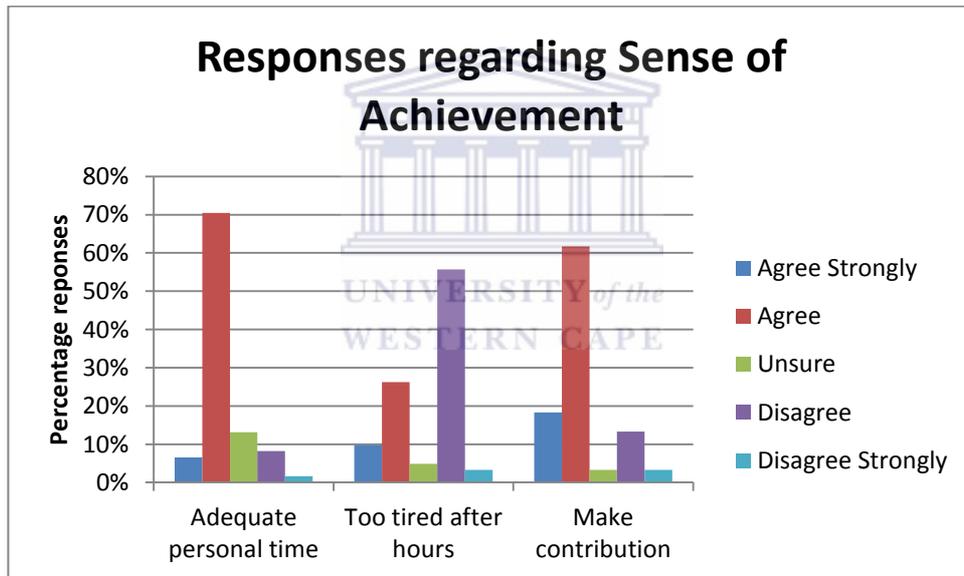


Figure 7. Response regarding sense of achievement.

#### 4.2.4 Job fulfillment

##### Optimal use of skills

Sixty-three percent of participants Disagreed or Disagreed Strongly that their job makes optimal use of their skills, while 34% Agreed Strongly or Agreed (See Table 9 and Fig 8.). A greater proportion of the clinical staff disagreed (75%) compared to the assistants (55%), but this difference was not statistically

significant.

Eighty-one percent of the staff in the urban areas agreed that their skills are optimally used. However, only 33% of the staff who worked in both urban and rural areas and only 15% of the staff in the rural areas agreed with this. This difference was not statistically significant.

When analysed by length of service, those with longer service are more than twice as likely to agree that their skills are being used optimally than those who have been in service for a shorter period (less than 5 years) (RR=2.2, p=0.023). When stratified by occupation, the assistants' response is similar, but among the clinical staff, those with longer service are over 5 times more likely to feel their skill are being optimally used (RR=5.7, p=0.005). Thus, the clinical staff with short service are the specific staff members who feel that their skills are not being optimally used.

#### **Lack of Opportunities to improve skills**

Fifty-nine percent of participants Agreed Strongly or Agreed that they have no opportunity to improve their clinical skills, while 27% Disagreed or Disagreed Strongly, and 15% were unsure (See Table 9 and Fig 8.). Seventy-five percent of the clinical staff agreed with this statement, as opposed to 55% of the assistants. The clinical staff were 1.8 times more likely to agree with this statement than the assistants (RR=1.79, p=0.014).

#### **Job satisfaction**

Seventy-six percent of participants Agreed Strongly or Agreed that they love what their job entails, while 11% were unsure (See Table 9 and Fig 8.). This was almost equally the case for the clinical staff (78%) and the assistants (72%), with no significant difference between the two groups. Similar results were found when the data was analysed by area in which the facility is located.

### Wish to continue with the job

Seventy-four percent of participants Agreed Strongly or Agreed that they would like to continue with their job in the long term, while 20% were unsure (See Table 9 and Fig 8.). Of the clinical staff, 84% agreed and so did 62% of the assistants, with the clinical staff being more likely to agree (RR=1.36, p=0.0479).

Two participating dentists added to the question by writing they would like to continue with their job in the long term, ‘but not in government’; ‘unless government improves...’.

Seventy-five percent of the community service dentists Agree Strongly or Agree that they would like to continue with the job in the long term, while 2 were unsure.

	Agree Strongly		Agree		Unsure		Disagree		Disagree Strongly		Total	
	n	%	n	%	n	%	N	%	n	%	n	%
Use of Skills	2	3%	19	31%	2	3%	26	43%	12	20%	61	100%
No opportunity to improve skills	10	17%	25	42%	9	15%	12	20%	4	7%	60	100%
Love my job	15	25%	31	51%	7	11%	7	11%	1	2%	61	100%
Wish to continue long term	15	25%	30	49%	12	20%	2	3%	2	3%	61	100%

Table 9. Responses regarding Job Fulfillment.

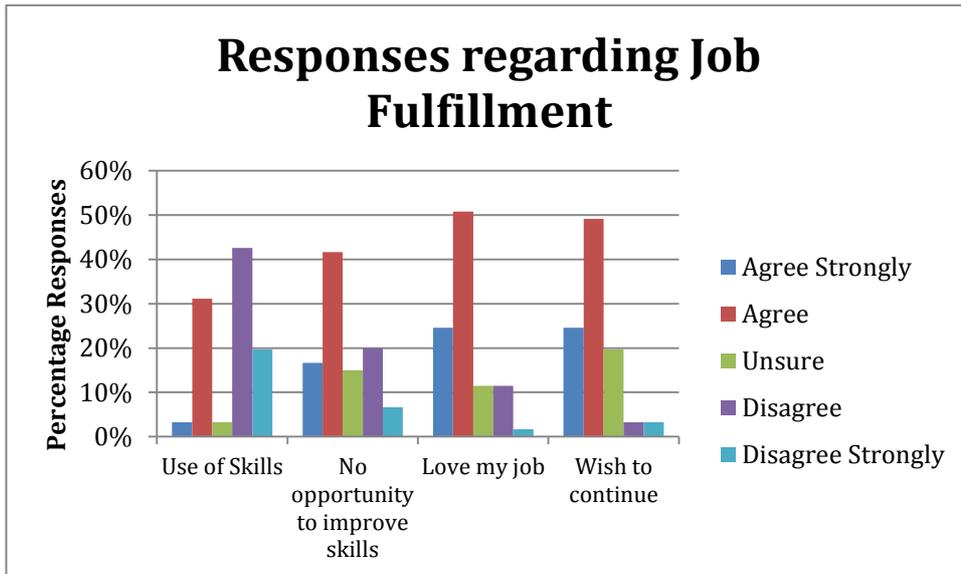


Figure 8. Job Fulfillment.

### 4.3. Open-ended questions

Seven of the 61 participants (12%) left all three questions in this section blank. The 54 remaining responses are reported on.

#### 4.3.1 Job satisfaction and Job performance

When asked how their level of job satisfaction affects their job performance, 21/54 (39%) of dental staff answered that their job satisfaction is directly affecting their job performance, whilst 13/54 (24%) answered that their job satisfaction is not affecting their work performance. Almost 39 percent of the participants left this specific question blank.

Of the respondents that stated that their job satisfaction is directly influencing their job performance, 71% stated that their low level of job satisfaction was affecting their job performance negatively, with reasons for this being inadequate management, the lack of resources, the limited services being offered and their

clinical skills that are not optimized. Some participants also reported that they felt frustrated, unhappy, demotivated, depressed, unappreciated and uncomfortable in their job. This diminished their job performance, and lead to them performing their work half-heartedly, as they are not fully satisfied in their jobs.

Almost 85% (11/13) of the participants who stated that their job satisfaction does not affect their job performance, also expressed love, happiness and enjoyment for their jobs, and mentioned serving the community as their greatest motivator. These participants stated that they still do their best to serve the community, although recognizing the limited resources available.

Two (15%) of the respondents reported that they do not let their satisfaction or dissatisfaction influence their work performance. ‘Work is work’, as stated by a dentist.



#### 4.3.2 Work-related factors

When asked which work-related factors should be addressed to improve their job satisfaction, an almost unanimous response was obtained by all dental staff. Eighty-one percent (44/54) of dental staff mentioned their work environment as the main factor that affects their job satisfaction. Of these, 59% (26 individuals) were clinical staff and 41% (18 individuals) were assistants.

Specific types of work-related factors that affected the staff included the following categories:

##### 4.3.2.1 Resources

Seventy-four percent of participants reported that resources, in general, but which include human, financial and physical resources, pertaining to dentistry, need to be addressed to improve their job satisfaction. Examples that of such resources

included:

#### 4.3.2.2 Dental equipment

This category includes dental chairs, dental instruments, dental equipment and mobile dental units, which 51.8% of the participants reported that this needs to be addressed to improve their job satisfaction.

The quality and quantity of dental instruments per operator were a concern, as were the servicing of equipment and damaged/defective/unserviceable instruments. Also, the dental mobile units that were not in a working condition and not being used were mentioned. ‘Mobile truck unit problems not being sorted, so we cannot do outreach clinics’, as stated by a dentist.

#### 4.3.2.3 Management

Another aspect that was mentioned very often by participants, that needs to be addressed to improve their job satisfaction, was related to management. Almost 39% of participants mentioned management concerns, which include problems with the Administrator/District/Provincial management. Problems that were mentioned include poor management; poor communication with administrator/top management; poor communication between facilities and district office; inadequate planning of administrative tasks e.g. meetings; lack of opportunity to participate in decision-making; dental staff not being heard/consulted; the employment of unqualified people to manage the public sector and oral health, ‘working under a nursing sister as our manager’, as stated by a dental assistant; and lack of good interpersonal relationship with staff and management. The lack of clearly defined job descriptions, inadequate management of the NHI pilot project, the lack of recognition by Government: ‘Government is not acknowledging anything you do extra out of your own for work’, as stated by a community service dentist, were also some of the issues raised.

Problems with management at the local clinic level were also reported, which included the supervisor's attitude, inadequate communication between permanent staff and community service dentists, and inadequate organization in the workplace.

One dentist wrote: 'Poor management is the main point which makes us feel unhappy at work. Nothing is done when we raise issues we encounter. I am not happy at all, but love my job and want to give more to the community. Things like these are the one's pushing people away hence they go private immediately after doing their one year community service because the Department does not offer anything good'.

#### 4.3.2.4 Salary and OSD

Thirty-three percent of participants mentioned that their salary and/or OSD scales should be addressed to improve their job satisfaction.

#### 4.3.2.5 Infrastructure and Infection control

Almost 32% of participants reported infrastructure, and 22% participants reported infection control as factors that need to be addressed to improve their job satisfaction. 'Lack of equipped places to work in at outside clinics', stated by a dental assistant. Inadequate hygiene ('we work in city halls that are not well equipped and dirty', stated by a dental assistant) and sanitation ('bad smell coming from the toilet; lack of running water in the clinic; no toilet facilities', stated by both dentists and dental assistants), and inadequate infection control areas due to inadequate separate clinical areas were a concern for participants.

Three participants also mentioned the need for a separate dental office and dental office equipment. 'Files are a major infection control issue', stated by an oral hygienist. 'Waar jy moet eet is waar instrumente gesteriliseer en gewas word. Dis geen plek waar jy net mens kan voel nie' (English translation: Where you

have to eat is where instruments are being cleaned and sterilized. It is not a place where you can just feel human), as stated by a dentist.

Seven of the eight participants at the John Taolo Gaetsewe District mentioned the lack of water at a facility in their district.

#### 4.3.2.6 Staff

Twenty-one percent of participants specifically mentioned staff shortages, staff competency, staff work ethic, and staff compliance, as factors that need to be addressed to improve their job satisfaction.

The need for teamwork was also mentioned by 22% of participants, which included the need for team building, respect from co-workers, proper communication with colleagues and other departments, and that the work ethic of supporting staff should be addressed.

The need for continuous professional development of dental staff were reported by 24% of participants. This included education and training, skills development, workshops, post-graduate studying with the availability of funds for such, and with the aim of gaining more knowledge and experience for dental public sector staff members.

#### 4.3.2.7 Safety

The lack of safety at clinics, and no security guards to protect staff in this regard, was mentioned by 17% of participants as factors that need to be addressed to improve their job satisfaction. Also, safety of the staff while travelling to and from clinics, e.g. 'travelling with used needles', as well as the safety of staff regarding infectious diseases were also mentioned. Three (6%) participants reported concerns regarding their physical health i.e. back pain.

#### 4.3.2.8 Limited service

Eleven percent of participants mentioned the limited dental services being offered as a factor that needs to be addressed to improve their job satisfaction. Dental staff members' frustration with the limited services being offered were evident, with statements such as: 'We only do extractions, guess that's (sic) nothing really we can learn e.g. RCT', stated by a dental assistant; 'Stagnation of work; no challenges', stated by an oral hygienist.

'Dit laat voel my asof ek verniet gaan leer het, want hier is mens net tandterapeut want eintlik word hier net ekstraksies gedoen', (English translation: It makes me feel as if I wasted my time in studying to be a dentist, because here I am only a dental therapist, as we only do extractions), as stated by a dentist.

'The work we do does not justify the five years I've studied. Only doing extractions on a daily basis is not dentistry', as stated by a dentist. In the telephonic interviews, the 7/8 (88%) of the HOD's of the facilities confirmed that extractions are the main form of dental treatment delivered to patients.

#### 4.3.2.9 Administrative problems

Eleven percent of participants reported problems with the Human Resources' Office/Department that need to be addressed, which included salary/OSD concerns, and weak communication between administrative staff and clinical staff.

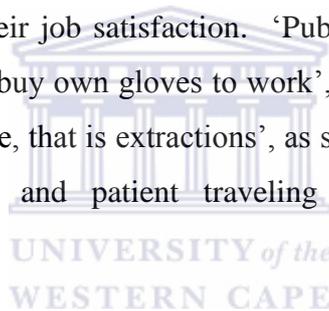
Missing files and patient waiting times for files were also highlighted. On the other hand, one dentist also stated: 'we have good admin at Kimberley Hospital Complex, so we don't have much (sic) non-related working problems, we only worry about clinical work'.

#### 4.3.2.10 Stock

This category included dental consumables and dental materials. Almost 17% of participants mentioned concerns about long waiting times after stock has been ordered, difficulties with stock procurement, being out of stock for long periods of time, and the lack of availability of stock.

#### 4.3.2.11 Patient factors

Patient factors were mentioned by 20% of participants, as factors that need to improve to improve their job satisfaction. These issues that were mentioned include the attitude of the patients towards oral health; patient compliance; cooperation and acceptance (of services being offered) as a factor that needs to be addressed to improve their job satisfaction. 'Public is ungrateful for everything you try to do extra e.g. buy own gloves to work', as stated by a dentist. 'People only know of 1 procedure, that is extractions', as stated by a dentist. The concern for patient satisfaction and patient traveling, were mentioned by 7% of participants.



#### 4.3.2.12 Traveling

A small percentage (6%) of participants stated problems with travelling that need to be addressed to improve their job satisfaction, which include the long distances that are travelled; long distance driving; the danger of travelling with contaminated sharps (as mentioned previously in 4.3.2.7); and that the overnight accommodation is not always comfortable.

#### 4.3.2.13 Policy

Almost 6% of participants reported that problems with the oral health policy need to be addressed to improve their job satisfaction. These statements include: 'the policy on oral health should be revised. Input of staff and practitioners on the ground should be sought. Current policy does not do the community any real

good’; ‘the oral health policy should be developed with clearly defined policies and protocols to follow – reduces stress’; ‘Relook and re-think the school programme (it is currently not working out)’; ‘Funds for post-graduate studies should be available’, stated by a dental therapist and a dentist.

#### 4.3.2.14 Language

One dentist mentioned that the language barrier was a major concern that needs to be addressed to improve job satisfaction. ‘Kommunikasie in taal wat almal verstaan, soos Engels of so in vergaderings of besprekings met spanlede. Hier word als in Tswana gedoen waarvan ek niks verstaan nie’ (English translation: Communication in a language that everyone understands, like English or so, in meetings or discussions with team members. Here, everything is done in Tswana, which I don’t understand).



#### 4.3.3 Non-work related factors

When asked which non-work related factors should be addressed to improve the dental staff’s job satisfaction, the following were reported:

Family responsibility (9%), road conditions (7%), and the harsh weather conditions of the Northern Cape (6%). Factors listed infrequently included the location of the facilities, the limited social activities available where the (base) facilities are situated, transport to work, and making a difference to the community, were all non-work related factors that were mentioned by dental staff that need to be addressed to improve their job satisfaction.

#### **4.4 Telephonic interviews with HOD's of each Facility**

The purpose of the telephonic interviews with HOD's was to get a better understanding of the working environment of each facility and to get a real description of how oral health services are accomplished. All 8 of the HOD's of each facility communicated with the author personally. Except for the dental clinic at Kimberley Hospital Complex, the working conditions were fairly similar across the province.

##### 4.4.1 Dental equipment

The lack of fully functional dental equipment is a major factor that adversely affects service provision in the Northern Cape Province, as stated by 7 (88%) of the HOD's. Most of the districts only have 1 dental chair currently in use, which was, in most cases, situated at their 'base' facility, either at the dental clinic or at the hospital.

This still did not mean that the dental chair was fully functional. Of the 8 dental facilities assessed, Siyanda District: Upington, (1 dental chair), Frances Baard District: Kimberley (4 chairs), Kimberley Hospital Complex (5 dental chairs) and Namakwa District: Springbok (1 dental chair), were the only districts with at least 1 fully functional dental chair.

The following clinics experienced problems with their equipment:

John Taolo Gaetsewe: Kuruman (no light, lack of adequate water),

Namakwa: Calvinia (irreparable, written off),

Pixley ka Seme: De Aar (no light), and

Pixley ka Seme: Prieska (no movement/ lack of suction unit/ light).

These districts have dental chairs that can only be used for extractions. Kuruman and De Aar use a mobile, free-standing light to provide light to the chair.

Some of the districts, e.g. Siyanda District (Upington) have more dental chairs within their district, but these dental chairs are not fully functional.

Namakwa District (Calvinia) is the only facility that makes use of a mobile dental chair in a “fixed” clinic.

In John Taolo Gaetsewe District (Kuruman) the mobile unit was not used at all during 2012 due to problems with the license disc, and is currently at Istrodent being serviced;

Pixley ka Seme District (De Aar), has a new fully equipped, mobile dental unit that was provided by the National Department of Health as part of the NHI pilot study. This mobile unit, however, was only used twice since October 2012 due to problems with the driver (who needs a code 10, PDP drivers’ license) and problems with the battery. Also, this mobile unit (physical truck) was provided but no (financial) provision was made for a driver or for consumables to be bought and used.

Siyanda District (Upington) has a mobile unit that has never been used since the current HOD (5 years) has been appointed there. The current HOD was employed there when an assessment was done by (private) technicians 5 years ago, and the mobile unit’s equipment was deemed not able to be repaired due to ‘old age’. According to the dental assistants (who have been employed at the facility for longer), there were problems with the driver (did not have a driver with a code 10 license) and currently the key has been lost.

#### 4.4.2 Management/Administration

The majority of HOD’s (6/8) mentioned problems with their District Administration/Manager, and their Provincial Manager. Problems that were mentioned included the fact that the district management is ill equipped to deal with dental problems/concerns and that this management is unfamiliar with regard to oral health, especially when it comes to the budget (‘they don’t know how much ‘things’ cost’.) and do not consult the HOD and ‘just cut the dental budget because they render (sic) other departments or disciplines more serious’. The

HOD's complained about the lack of support from their Provincial Manager and the general lack of management expertise.

#### 4.4.3 Infrastructure, infection control and safety

Except for the dental clinic at Kimberley Hospital Complex, all other HOD's reported inadequate infrastructure at the majority of facilities within their district. All dental staff at facilities (except those at Kimberley Hospital Complex) are supposed to do outreach clinics, traveling to each facility within their district/sub-district. Several HOD's stated that due to the lack of adequate infrastructure, several facilities/staff make use of buildings within the community that are not health clinics, and very often, multiple patients are being treated in the same room, with no patient confidentiality and privacy. Inadequate infection-control was also mentioned by the HOD's due to the lack of not having a separate clinical area, due to the lack of space.

The HOD's reported that all facilities make use of cold sterilization (immediately) and heat sterilization (autoclave) at least at their 'base' facility daily. Not all facilities, especially 'outreach clinics' have adequate toilet facilities for the staff members to use.

John Taolo Gaetsewe District (Kuruman) had a major problem with running water at a facility. The facility sometimes does not have running water, leading to problems with cleaning of the instruments and infection control, and inadequate hygiene and sanitation.

#### 4.4.5 Incentives for Head of department

Frances Baard District is the only district with an appointed District Co-ordinator (forms part of the job description, responsible for planning oral health services in the district). All other HOD's are doing all the work (planning, administration, statistics, etc.) and taking the responsibility without receiving any compensation

for it. It is not on paper/job description that they are HOD of the dental facility/clinic. All remaining HOD's would like to be compensated for being the HOD.

#### 4.4.6 Limited services

The majority of dental services being delivered are dental extractions, and in the majority of cases they are being performed with the patient seated on a normal office chair. Kimberley Hospital Complex is the only facility that offers a full spectrum of oral health services to the public. The majority (7, or 88%) of the HOD's stated that they would like to offer a wider range of oral health services to the patients.



## **CHAPTER 5. DISCUSSION**

### **5.1. Staff**

Since the staff at Kimberley Hospital Complex are the only dental staff working in an urban area only, this factor should be considered when explanations for job satisfaction are assessed, as the working conditions between the urban and rural facilities may vary substantially.

One dentist receives a full time bursary from the Northern Cape Department of Health, and is a Registrar in Orthodontics at the University of the Western Cape. He is on the staff establishment, but in actual practice, there is 1 less dentist in the Frances Baard district providing actual service to the public. This dentist was not included in the study.



### **5.2. Work-related factors**

#### **5.2.1 Work environment**

In the closed-ended question section, the majority (60%) of the dental staff agreed that they enjoyed their working environment. The clinical staff were 1.6 times more likely to enjoy their working environment than the assistants (see Table 4).

However, in the open-ended questions section, an even higher majority (72%) of the participants stated that their working environment is the major factor that needs to be addressed to improve their job satisfaction. As stated by Bergstrom *et al* (2010); Puriene *et al* (2008a; 2008b); and Berthelsen *et al* (2010), a variety of harmful work-related environmental factors affect the physical and mental health of dental staff.

Thus, although the majority of the dental staff seems to enjoy their working environment, most of them also feel that it needs further improvement, as it may

affect their health, and thus influence their job satisfaction.

### 5.2.2 Resources

In the open-ended question section, 74% of dental staff reported resources (Human, Financial and Physical resources) as the other major factor to be addressed to improve their job satisfaction. This is a state of affairs probably seen in most of the provinces and needs to be addressed by management.

### 5.2.3 Teamwork and support

In the closed-ended question section, the majority (80%) of participants Agreed that the staff at the clinic eases their task by working as a team, and 71% of participants Agreed that they have the support of their staff at all times (See Table 5 and Fig 4.).

In the open-ended question section, 22% of participants mentioned the need for teamwork, which included the need for team building, respect from co-workers, proper communication with colleagues and other departments, and that the work-ethic of supporting staff should be addressed.

Thus, although a large percentage of participants did experience teamwork and staff support, some participants did not feel the same way, and recognized the need for teamwork and staff support.

### 5.2.4 Dental Staff

The perception by the staff regarding the issue of staff shortages warrants further discussion.

Fifty-four percent of participants Agreed that their unit was understaffed, whilst

14% were unsure (See Table 5 and Fig 4.). Eight percent of participants mentioned staff shortage as a factor to be addressed to improve their job satisfaction, in the open-ended question section. There were no statistically significant differences between the clinical staff and assistants regarding staffing levels.

However, these percentages of staff shortages as reported by participants, are based on their individual facilities, and could be based on individual occupational shortages or the workload within a facility.

Table 1 shows the staff distribution with population estimates (StatsSA: Census, 2011) within the Northern Cape province and Table 2 shows the staff ratios in the Norms and Standards and Practice Guidelines (Department of Health, 2000) in relation to the Northern Cape.

From the above comparisons, and based on the population of the province and of each district, the Northern Cape Provincial Department of Health does, in fact, have a dental staff shortage. Inadequate staffing levels can reduce quality of work and constrain one's ability to provide quality care (AFT Healthcare, 2002).

The ratio for clinician to dental assistant is the only ratio that is almost correct. However, the ratios for clinician to dental assistant at some facilities are worrying. Only 2/8 (25%) of dental facilities have a ratio of clinician to dental assistant greater than what is required by the Norms, Standards and Practice guidelines for primary oral health care.

John Taolo Gaetsewe district's ratio of clinician to dental assistant is 1:3, while Namakwa district: Calvinia's ratio is 1:0.3. The dental assistant at Namakwa District: Calvinia went on maternity leave during 2013, and no provision was made to appoint or transfer (from another district) a temporary dental assistant. For that period, the facility did not have a dental assistant.

Where the assistants are considered to be in excess at 1 facility (Kuruman), it could be assumed that there is not enough work for all the dental assistants in the facility at the same time and within their working hours. This was confirmed by an HOD.

It is not clear what criteria is used to appoint staff in the different occupations, as some individual occupations are in excess at some facilities, while other facilities have an occupational staff shortage.

Too few oral hygienists are employed by the Northern Cape Department of Health. This is a major concern, as a large portion of an oral hygienists' job description is oral health prevention and promotion. From the data, both oral hygienists were grouped as 'long service', which indicates that oral hygienists have not been appointed recently and that the shortage of oral hygienists has been the situation for many years. Except for specific health promotional days in other districts than Frances Baard district, the 'provincial' oral hygienist never visits the other districts. This could be justified, as the whole of the Northern Cape province only have the services of 1 oral hygienist, as the other oral hygienist is situated at Kimberley Hospital Complex, and only serves the urban area. Thus, it could be assumed that oral health prevention and promotion is neglected as a result of this. The employment of more oral hygienists needs to be addressed.

The staff shortage (and/or maldistribution) of dental assistants at the majority of dental facilities within the province, could be a possible reason why the assistants enjoy their working environment less than the clinical staff.

#### 5.2.5 Management

In the closed-ended question section, more than half of the participants (56%) Agreed that the communication with their administrator is poor, while 15% of the participants were unsure (See Table 5 and Fig 4.). Furthermore, the assistants were twice as likely to have a problem with communication with the

administration than the clinical staff.

This could be due to the fact that the assistants do not deal directly with their administrator, but via the facility HOD. Another reason could be because the assistants do not really know what the situation is because of inadequate communication from the administration via their HOD.

In the open-ended section, almost 35% of the participants reported unhappiness with their District Manager/Administrator. Almost 67% of the clinical staff and almost 33% of assistants stated that problems with their administration are factors that need to be addressed to improve their job satisfaction. A possible reason for this could be that the assistants do not often deal directly with the district manager/administrator, so do not experience the problem as much as the clinical staff.

The dental staff stated reasons for the unhappiness with their district manager/administrator was that the district manager/administrator was from a different profession and, although responsible for oral health, did not have sufficient understanding of oral health. Participants specified that these district managers/administrators do not know how much dental equipment, instruments and consumables cost, and what is needed for optimal oral health service delivery. The dental staff mentioned that the district manager/administrators often would procure the cheaper, poorer quality product, rather than considering the longevity, productivity or effectiveness of the more expensive product. Dental staff reported not being consulted or having input in decision-making regarding oral health, even though the dental facility HOD's form part of the district management team. Dental staff also reported being unhappy regarding the district manager/administrator, who does not understand or know oral health or their working circumstances, but has to do their annual performance evaluations (SPMDS).

At the local level, dental staff reported reasons for the unhappiness with the

facility management were the negative attitude of the facility HOD, and the attitude of the permanent staff toward the community service dentists.

In the telephonic interviews with the HOD's of the dental facilities, the majority (75%) of the HOD's expressed their unhappiness toward their Provincial manager, giving reasons such as inadequate communication, lack of support, and overall inadequate management, as factors that need to be addressed to improve their working conditions.

It is unjust for a staff member to be evaluated (regarding their work) by a person who does not know or who is not in the dental profession or who is placed on a salary scale below them. A chief dentist should be appointed for the province, to do annual evaluations, and to be consulted by the district managers regarding oral health.

It is also unfair that dentists, even if they are community service dentists, should report to dental therapists, who are the clinical managers of the facility.

The fact that so many staff members are unhappy with the Management of oral health is a major concern that needs to be addressed immediately.

#### 5.2.6 Equipment, Stock, Limited services and Optimal use of skills

According to the Norms, Standards and Practice guidelines for primary oral health care, and the National Oral Health Strategy, the “basic primary oral health care services” that will provide substantial returns in health in terms of gains in health outcome, must at least consist of the following:

- Promotive and primary preventive oral health services
- Basic treatment services consisting of the following:

An examination

Bitewing radiographs

Scaling and Polishing

Simple (1-3 surface) fillings

Emergency relief of pain and sepsis

In view of the resource constraints and due to the moral obligation to provide oral health services for the relief of pain and sepsis (emergency services), it is proposed that, in addition to the promotive and preventive oral health services, health authorities in the provinces should at this stage at least provide an emergency oral health service to all its inhabitants” (Department of Health, 2000; Department of Health, 2003).

Currently, the largest percentage of dental services being offered by the public sector in the Northern Cape consists of minimal oral health promotion and prevention, and emergency relief of pain and sepsis in the form of dental extractions. Thus, not even the basic primary oral health care service package, as required by the Norms, Standards and practice guidelines for Primary Oral Health Care, and the National Oral Health Strategy, is provided to a large percentage of the population of the Northern Cape Province. This is a major concern. At least some of the emergency relief of pain and sepsis is provided for, but at what cost? Very little prevention or fillings are performed. This will result in the inevitable extraction cycle repeating itself.

### Equipment

In the closed-ended question section, the majority (56%) of the dental staff stated that their instruments were of a good standard, while 10% were unsure. In the open-ended question section, 51.8% of participants expressed their unhappiness toward the quality and quantity of equipment, stating that they use inadequate, sub-standard instruments and equipment. The long waiting times for equipment repairs and procurement of equipment stock was also mentioned by the dental

staff.

All (100%) of the dental staff at the urban facility reported that their equipment is of good standard compared to only 26.9% of staff in rural areas and 12.5% of staff who worked in both rural and urban areas. This could be attributed to adequate management, as Kimberley Hospital Complex's dental clinic has an appointed Clinical manager at their facility. This clinical manager is a dentist, who has insight to what is required for optimal oral health service delivery, and knows what the needs are for patients and staff. However, the rural dental facilities are neglected when it comes to equipment.

The majority of the dental facilities in the Northern Cape Province do not have fully functional or sufficient dental chairs. As stated by the HOD's of the facilities, for the majority of the time, the dental staff in rural areas provides dental extractions on normal office chairs. The lack of fully functional dental chairs are a major concern. Also, the HOD's mentioned the long periods they have to wait if a dental chair needs to be repaired or replaced, and it seems that the lack of fully functional dental chairs and the long waiting period for repairs of the dental chairs or buying new chairs has been the situation for years. The HOD's also mentioned the struggle to buy new chairs, often receiving resistance from their district manager, and stated that the reason was that these district managers do not deem oral health important enough, when compared to other health disciplines.

It is unknown if the National Oral Health Directorate, at the Department of Health of South Africa is aware of this (lack of chairs, working on office chairs) situation, or what the reasons are as to why the dental facilities are unable to get funding from the national or provincial governments for dental chairs.

Whether the dental staff accepted the lack of dental chairs and working on normal office chairs for extractions as the norm, remains a question.

This situation could have serious repercussions and holds serious occupational

risk for both operator and patient. The Department of Health should then be prepared to deal with the consequences if a staff member or patient is injured due to extractions being done not on fully functional dental chairs. Besides dental staff members complaining about lower back pain, there is no other evidence of other serious accidents that patients or staff incurred due to working/extracting teeth on normal office chairs. This situation is worrying. Dentists need dental chairs to properly treat patients. Dental chairs that are not fully functional and the situation of not having at least 1 chair per clinician should be addressed.

The Essential Equipment List for Primary Oral Health Delivery, as stated in the National Norms, Standards and Practice guidelines for primary oral health care (Department of Health, 2003), requires at least ‘a dental chair with light’; and/or a ‘Dental unit with a complete set of handpieces’ (mobile unit) or a ‘Dental chair complete with light, handpiece unit and handpieces (Single-fixed). Clearly, this is not the case in the Northern Cape Province.

Three facilities’ HOD’s reported that they have a mobile dental unit, but none of them are currently in use. Reasons for this was that these facilities do not have a driver with a valid code 10, PDP license, problems with the license disc, the unit’s key that is lost, equipment inside the unit are irreparable, and the unit that is currently being serviced.

One mobile dental unit is being sponsored by the NHI, as part of it’s Pilot project within that district. This unit was fully equipped, but not fully stocked. The stock for this mobile unit needs to be procured via the District’s Oral Health budget, which is already limited. This constitutes poor management.

A dentist stated in the open-ended question section of the questionnaire: ‘Mobile truck problems not being sorted, so we cannot do outreach clinics’. Thus, services are not being delivered to certain communities while the mobile unit is out of use. It is also confusing that some facilities are dependent on mobile units for outreach clinics, while others work on office chairs. Also, it seems that the

same dental team within a district uses office chairs at some facilities, but chooses not to 'do' certain facilities and uses the mobile unit as an excuse. Again, a chief dentist should be appointed for the Northern Cape Province, to guide dental staff and to promote consistency and improved service rendering.

### Limited services

With the lack of fully functional dental chairs comes the lack of certain dental services, including scaling and polishing, and restorations not being able to be offered to patients, as these treatment services require movable and reclining chairs, adequate light, suction units and adequate infrastructure.

In the open-ended question section of the questionnaire, 1 respondent complained of the lack of running water, which is also needed for comprehensive dental treatment. Also in the open-ended section of the questionnaire, 11% of the participants expressed frustration with the limited dental services currently being offered to patients, as did the HOD's of the facilities in the telephonic interviews. This is similar to the situation reported by Luzzi and Spencer (2011), and Luzzi *et al* (2005), for public service dentists.

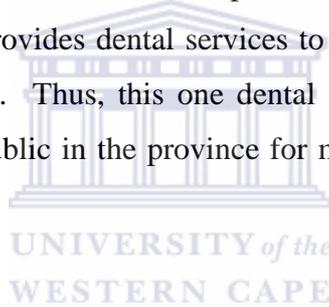
Dental staff reported in the questionnaire, that they treat patients for extractions the majority of the time. This was confirmed by 7/8 (88%) of the HOD's of the facilities. Thus, patients have no other option as to have their teeth extracted when they have tooth decay.

Only doing extractions is not dentistry, and understandably so, the dental staff could be frustrated from delivering the same limited form of treatment continually everyday (Luzzi and Spencer, 2011; Gilmour *et al*, 2005; Luzzi *et al*, 2005). This may explain part of the lack of job satisfaction seen in the responses about the use of skills in paragraph 4.2.4.

Limited promotive and primary preventive oral health services are being offered to the public, during routine dental treatment, and via specific programmes by the

dental staff. Also, since the need for dental extractions of primary and permanent teeth is so high in the province, health promotion and prevention requires special attention. Ten percent of the dental staff mentioned in the open-ended question section that patient factors such as the patients' attitude, patients' compliance, patients' satisfaction were 'work-related' factors that need to be addressed to improve their job satisfaction. Thus, the need for oral health promotion and disease prevention (including oral health education) should be made a priority. The National and Provincial Departments of Health are supposed to recognize the need for health promotion and prevention to facilitate the retainment of teeth, as opposed to just extracting the teeth.

The dental clinic at Kimberley Hospital Complex is the only facility in the Northern Cape province that offers a full spectrum of dental treatment to indigent patients. This facility provides dental services to patients on a referral basis and in special circumstances. Thus, this one dental facility is totally inadequate to meet the needs of the public in the province for more comprehensive oral health services.



#### Optimal use of Skills

With the limited dental treatment options being available for patients, the majority of the dental staff gets minimal, if any, exposure to doing treatment procedures other than extractions.

The majority of the respondents (63%) stated that their jobs do not make optimal use of their clinical skills, in the closed ended question section. This was especially the case among clinical staff, of whom 73% felt this way.

The dental staff may feel that they are adequately equipped with the necessary skills and have so much more to offer patients in terms of dental treatment, than to just perform extractions most of the time.

The majority of the participants (81%) of the staff in the urban areas agreed that

their skills are optimally used. However, only 33% of the staff who worked in both urban and rural areas, and only 15% of the staff in the rural areas agreed with this. Although this difference was not statistically significant, it can be understood when seen against the background of the more comprehensive services being rendered at the dental clinic at Kimberley Hospital Complex, which is in an urban area.

When analyzed by length of service, those with longer service are more than twice as likely to Agree that their skills are being used optimally than those who have been in service for a shorter period (less than 5 years). This may be because their initial enthusiasm has been blunted and they just accept the *status quo*.

When analyzed by occupation, the assistants with longer service are more than twice as likely to Agree that their skills are being used optimally. Among the clinical staff, those with longer service are over 5 times more likely to feel their skills are being optimally used. Thus, it is clear that the clinical staff with short service feel that their skills are not being optimally used. This is unfortunate as these are the new professionals that need to be recruited into the service.

Overall, 59% of participants Agreed that they have no opportunity to improve their clinical skills. Among the clinical staff, 75% agreed with this statement. This was confirmed in the open-ended question section, where dental staff also expressed a need for continuous professional development (21%), and even a need for post-graduate studies. It can be assumed that the staff would like financial support and the opportunity to be available for them to partake in such activities. It is a heartwarming to observe that the dental staff have a desire to develop their skills. The opportunity should be given to dental staff to improve their clinical skills. Educational courses and workshops, with the necessary financial aid, should be provided for the dental staff by the Department of Health. Improving the dental chair situation would also allow the dental staff an opportunity to improve their clinical skills, as this would provide clinicians the opportunity to apply their skills every day.

The above statements could be understood as dental staff giving their best despite their current work environment, but expressing a need and willingness to deliver a more comprehensive oral health service that makes full use of their clinical skills, and that is not constrained by a lack finances or limited treatment options. This is a positive foundation that needs to be built on.

Newton (2008), stated that clinical freedom, autonomy, respect and personal development are key dimensions of the working lives of health care professionals. Providing the dental staff members with more clinical freedom by permitting comprehensive treatment, and improving their clinical skills and personal development, would contribute positively to the dental staff's job satisfaction.

#### 5.2.7 Infrastructure, infection-control and safety

Participants mentioned infrastructure (almost 28%), infection control (almost 20%) and safety (almost 15%) in the open-ended question section, as factors that need to be addressed to improve their job satisfaction.

The lack of adequate infrastructure in some rural areas causes several dental staff to make use of buildings within the community that are not Health Clinics. There are no separate clinical and personal areas for dental staff and patients, and often multiple patients are treated in the same room on normal office chairs, as stated by the HOD's telephonically.

These infrastructural situations cause a concern regarding infection control and patient confidentiality. Infection-control should never be compromised, and patients should always have patient confidentiality. These issues are serious ethical issues, which need to be addressed.

The Norms, Standards and Practice guidelines for primary oral health care also has specifications for oral health facilities and guidelines for infection-control for

oral health. Provincial and district managers should consider these guidelines for infrastructure and infection control when setting up a facility or find solutions to work around these issues.

In the closed-ended question section, overall 48% of participants felt that their clinic was not a safe working environment. Of the assistants, 76% felt this way, as opposed to only 53% of the clinical staff.

Dental staff reported in the open-question section that they felt unsafe at some facilities, as no security staff are available at the facilities. Also, safety of the staff while travelling to and from clinics/facilities were mentioned, e.g. 'Travelling with used needles'. The safety of staff regarding infectious diseases were also mentioned as a concern. All the staff at one facility mentioned the lack of running water at their facility, which is of great concern regarding infection-control.

The dental staff may have a fear of occupational risk that may arise from the current work environment, due to physical injury to themselves or the patient due to working on normal office chairs, or for the spread of disease (Puriene *et al*, 2007).

The fact that the assistants are more dissatisfied with the safety could be because of the fact that the majority of the assistants are female, making them more vulnerable for their physical safety at the clinics/facilities than the mainly male clinical staff.

The lack of adequate infrastructure and infection control poses a huge risk for spread of disease to dental staff and patients. Traveling with used sharps like needles or blood-contaminated products are unacceptable because of the risk of sharps injury. The fact that dental staff members feel unsafe in their work environment is a huge concern, as it would have serious repercussions if these fears became a reality.

### 5.2.8 Workload

In the closed-ended question section, 44% of participants felt that they see too many patients per day. The assistants were more than twice as likely to feel they saw too many patients per day, compared to the clinical staff.

In the open-ended question section, 2 clinical staff members and 2 assistants reported excessive workload as a factor that needs to be addressed to improve their job satisfaction.

Also, 36% of the participants felt that they are too tired to do anything after hours. The clinical staff, with 78% of them agreeing to this statement, were more likely to be too tired after hours than the assistants.

More assistants feel they see too many patients per day, than the clinical staff, but more clinical staff were too tired to do anything after work. This could be due to the assistants being understaffed at the majority of facilities, based on the clinician/assistant ratio. Thus, it could be asserted that the majority of the assistants are having a greater workload because they experience a staff shortage.

Also, the 20% of participants that are unsure that they see too many patients per day, is worrying. This shows lack of leadership and guidance by management, as these staff members do not know how many patients they are supposed to treat every day. A chief dentist should be appointed to guide the dental staff to address this issue.

### 5.2.9 Income

In the closed-ended question section, only 46% of participants Agreed that their income is fair for the work they do. The assistants were nearly 3 times more likely to be dissatisfied with their income than the dentists, which is

understandable given the large difference in remuneration between clinical staff and assistants.

In the open-ended question section, 16% of participants reported their salary as a factor that needs to be addressed to improve their job satisfaction. In contrast to the closed-ended question section, where it was mainly the assistants that were unhappy with their income, of the 10% of respondents that mentioned that their salary needs to be addressed, 60% of them were clinical staff.

The staff members could argue that they earn too little for the harsh working environment they have to endure. Along with this, the assistants could be unhappy with their salary due to staff shortage at most of the facilities, giving them a greater workload. Thus, the salary of dental staff should be addressed, but salary alone is not a good long-term solution to staff satisfaction. Remuneration is only one of many job rewards, and research indicates a weak correlation between salary and job satisfaction (Spector, 1997 as cited in Judge *et al*, 2001).

In the closed-ended question section, just more half (51%) of participants Agreed that the salary they earn is not as important as the satisfaction gained by serving the public. Furthermore, 67% of the assistants agreed that their salary was not as important as the satisfaction gained by serving the public, although only 38% of the clinical staff felt this way. The assistants were 1.7 times more likely to feel that their salary is not as important as the satisfaction gained by serving the public, than the clinical staff.

Thus, the assistants complained more about their salary, but more agreed that the salary they earn is not as important as the satisfaction gained from serving the public.

As in Australia, public dental services in South Africa, provide care to socio-disadvantaged patients, and many patients that present to public dental services have complex social health and dental needs (Luzzi and Spencer, 2011), and

public service staff members may feel overwhelmed by the needs of their patients.

A sense of guilt about having a job and an obligation to providing services to the public could be the reason so many (49%) dental staff members Disagreed or were unsure that the salary they earn is not as important as the satisfaction gained by serving the public. Also, many of the assistants are from or part of the communities they work in and serve, and may know directly what the socio-economic circumstances are, thus feeling more obliged to serve the public, than to worry about their income.

Whatever the reason, having a significant proportion of staff who feel that the salary they earn is not as important as serving their community is both interesting and praiseworthy. Such commitment is a very sound foundation on which to build and improve a service that clearly needs improving.

Regarding the question whether their income allows them to live comfortably and provide for their needs, 54% of participants Agreed. The assistants were nearly three times more likely to disagree with this issue than the clinical staff. Thus, the assistants were more in need of a salary increase to allow them to live comfortably and provide for their needs.

Only 46% of the participants Agreed that a public service staff member has no incentive for improving performance, while 13% were unsure. No statistically significant differences were found between the clinical staff and the assistants in this regard.

This could be due to the dental staff feeling that the District Manager/Administrator is inadequate to deal with oral health and marking them down or not up, at their SPMDS appraisals. Except for the District Co-ordinator at Frances Baard (it forms part of his job description), or the Clinical Manager at Kimberley Hospital Complex, no other HOD receives incentives or recognition for being the HOD of the dental facility. In the telephonic interviews, all of the

remaining HOD's of the dental facilities reported that they have the 'job description' of HOD, but not the salary that accompanies it.

Also, in the open-ended question section, 2 dentists reported that they are still not on the correct OSD salary scale, for more than a year now, despite several attempts made and requests put to the district management office to correct their salary. This is unacceptable. Staff members' salary should be automatically corrected when their OSD scales change. They should not need to bring this to the attention of management. Also, the Provincial manager should know on which OSD Scales the staff should be, and intervene to correct the OSD scales proactively.

Clearly, the majority of the dental assistants are unhappy about their salary. OSD should be implemented for the assistants as soon as possible.

#### 5.2.10 Serving the community

In the closed-ended question section, 80% of participants Agreed that their job allows them to make a contribution to their community. Almost 91% of the clinical staff agreed with this as opposed to 67.9% of the assistants, but the difference was not statistically significant, probably due to a small sample size.

Also, in the open-ended questions, 2 clinical staff members stated that their job satisfaction was positively influenced if the patients were happy with the treatment.

Thus, this can be perceived as dental staff wanting to make a contribution to their communities, and enjoying doing so. But, other work-related factors also need to be addressed in order for them to contribute fully and whole-heartedly to the community, as this influences their job satisfaction positively.

#### 5.2.11 Job fulfillment

In the closed-ended question section, the majority (76%) of the participants Agreed that they love what their job entails. This was almost equally the case for the clinical staff (78%) and the assistants (72%), with no significant difference between the two groups. Similar results were found when the data was analyzed by the area in which the facility is located.

Also, the majority (74%) of the participants Agreed that they would like to continue with their job in the long term, while 20% were unsure (See Table 6 and Fig 6.). Of the clinical staff, 84% agreed and so did 62% of the assistants. This is a very positive finding.

In the closed ended question section, 2 participating dentists added to the question by writing they would like to continue with their job in the long term, ‘but not in government’; ‘unless government improves...’. It could be assumed from this that these 2 dentists really would like to continue with their job in government, but that certain changes regarding their work environment need to happen. This could also explain the reason why 11% of the participants were unsure if they love what their job entails, and 20% of participants were unsure if they would like to continue their job in the long run.

Seventy-five percent of the community service dentists Agreed that they would like to continue with the job in the long term, while only 2 were unsure.

It appears that the dental staff is reasonably fulfilled in their job, and this is a very positive finding, but there are still some factors that need to be addressed for the staff to be satisfied in their job.

#### 5.2.12 Urban versus Rural dental facility staff members

If these results are examined again in the context of the geographic location, it is

clear that there are substantial differences between the urban and rural staff.

The dentists in the urban areas expressed perceived job satisfaction.

In the closed-ended question section, 37% of dental staff in the urban facility did not feel that communication with their administrator is poor, compared to 63% of staff based in rural facilities. These differences were not statistically significant, probably due to low numbers.

Also, 100% of the staff in the urban area agreed that their equipment is of a good standard.

Eighty-one percent of the staff in the urban areas agreed that their skills are optimally used, compared to only 33% of the staff who worked in both urban and rural areas, and only 15% of the staff in the rural areas agreed with this. Although this difference was not statistically significant, it is understandable as the staff at the urban dental facility at Kimberley Hospital Complex provide a comprehensive dental service, whereas the staff in the rural areas only provide a very basic service.

As mentioned above, 82% of the staff in the urban area felt safe in their working environment, as opposed to only 27% of staff in rural areas; and 25% of staff working in both urban and rural areas. This difference was not statistically significant. However, this difference may be due to better security at the hospital entrance, better infrastructure and infection-control practices.

Only 18% of the staff in the urban area felt they treated too many patients per day, as opposed to 50% of the staff in the other areas. This difference was not statistically significant. This difference, however, could be because staff at the urban dental facility does a variety of oral health services for patients, and treatment at the urban facility may take longer (per patient) than the average extraction. Staff at the rural facilities do extractions most of the time, which takes

a shorter period of time per patient to complete. Thus, more patients can be treated for extractions in the rural facility than in comparison to other dental treatment in the urban dental facility, in the same period of time.

Ninety percent of the dental staff at the urban facility reported that they love what their job entails and 83% reported that they would continue their job in the long run.

When stratified by occupation, all the assistants in the urban area disagreed that their income is fair for the work they do, and that their income allows them to live comfortably and provide for their needs. This is similar to the findings for the Assistants working in both the urban and rural areas and those working in rural areas only, and is a reflection of how difficult it is to manage on a low salary these days. However, 50% agreed that their salary is not as important as satisfaction gained by serving the public.

In the open-ended question section, the participants in the urban area (that actually completed the question on which work-related factors that need to be addressed to improve their job-satisfaction), stated single answers for management, infection-control, teamwork, salary and OSD scales, and their work environment. Two participants in the urban area stated equipment, resources and more theatre time as factors that need to be addressed to improve their job satisfaction.

Eighty percent of the dental assistants in the urban area listed continuous professional development activities as the major work-related factor that needs to be addressed. These are not difficult things to manage.

Except for the salary concern and the need for continuous educational activities, it has been shown that the Assistants in the urban area, too, are satisfied with their work-environment and thus, seems satisfied with their jobs.

The fact that the staff in the urban areas seemed more satisfied in their jobs could be due to proper management, which offers dentists a full scope of practice, to fully optimize their clinical skills, with adequate dental chairs, no infra-structure problems, adequate infection-control, adequate administration (patient files), which all make their working environment pleasant. Thus, this dental clinic at Kimberley Hospital Complex could be compared to a private dental practice.

As stated by Puriene *et al* (2008b), private dentists have a higher possibility of being satisfied with their job as compared to dentists working in both the private and public sector. Job satisfaction among dental practitioners is known to be significantly associated with a shift toward private work (Gilmour *et al*, 2005; Harris *et al*, 2009).

#### 5.2.13 Language

A community service dentist expressed unhappiness because he/she did not always understand the language that was spoken. What is worrying is that this dentist did not complain about not being able to communicate with patients due to the language barrier, but complained about the communication, or lack thereof, within meetings due to the language barrier. This is totally unacceptable (and disrespectful) not to make provision in meetings so that everyone involved can understand what is being discussed and decided on, and to allow them to give input on matters that might affect dental staff and services. English should be the language of choice to be used in all meetings.

#### 5.2.14 Patient factors

In the open-ended question section, factors relating to the patients were mentioned by 20% of the participants, as factors that need to be addressed in order to improve the dental staff's job satisfaction. Dental staff felt that the patients are ungrateful for the dental services being offered or treatment being done, and that patients only know about dental extractions and do not have knowledge of alternative treatment options. The patients' attitude towards oral health and patients' compliance should be addressed. The solution lies in health promotion - patients should be educated more about oral health and the importance thereof. For this, more oral hygienists or health educators are needed in the service. Also, for the future, more health information could be incorporated into the school syllabus.

Patient-factors are a form of stress from work-related sources (Newton *et al*, 2001). Patient factors such as patients' attitude toward oral health and patients' compliance were reported to have a negative effect on the dental staff's job satisfaction. On the other hand, patients' satisfaction and serving their community had a positive effect on dental staff's job satisfaction.

#### 5.2.15 Policy Issues

The community service dentists expressed much unhappiness with their current work environment, in the open-ended question section. Three community service dentists felt that they studied to become a dentist, but that their skills are not being optimally used and that they don't have much to offer patients except extractions. Seventy-five percent of the community service dentists would like to continue with their job in the long run – which, in itself is a very positive finding. With the occupational staff shortages, as discussed previously, and the fact that there are no vacant dentists posts in the province for the appointment of staff, no appointments will be made for the next few years, at least. Thus, these dentists will not be retained by the Department of Health for the next years, despite their willingness and the demonstrated need for their services.

Government should make provision to retain these community service dentists, and appoint more dental staff. This, after all, was the intention of policy makers when introducing community service. The staffing issue requires further investigation by the health authorities.

Also, three participants stated concerns regarding the Oral Health Policy itself. These statements include: ‘the policy on oral health should be revised. Input of staff and practitioners on the ground should be sought. Current policy does not do the community any real good’; ‘the oral health policy should be developed with clearly defined policies and protocols to follow – reduces stress’; ‘Relook and re-think the school programme (it is currently not working out)’; ‘Funds for post-graduate studies should be available’, stated by a dental therapist and a dentist.

These statements need to be investigated, and need to be addressed to give dental staff a guideline to work from. The current policy should be evaluated and changed, if found to be unsatisfactory.

#### 5.2.16 Job satisfaction and job performance

In the open-ended question section, 38% of the participants answered that their job satisfaction was directly influencing their job performance, 23% answered that their job satisfaction is not influencing their job performance, and 39% of participants did not answer this question.

Of the respondents that stated that their job satisfaction is directly influencing their job performance, 71% stated that their low level of job satisfaction was affecting their job performance negatively. Their reasons for this were ineffective management, the lack of resources, the limited services being offered and their clinical skills that are not optimized. Some participants also reported that they felt frustrated, unhappy, demotivated, depressed, unappreciated and uncomfortable in their job. This diminished their job performance, and lead to them performing their work half-heartedly, as they are not fully satisfied in their jobs.

However, almost 85% of the participants, who stated that their job satisfaction

does not affect their job performance, also expressed love, happiness and enjoyment for their jobs, and mentioned serving the community as their greatest motivator. These participants stated that they still do their best to serve the community, although recognizing the limited resources available. This is a very positive finding and it is an excellent foundation on which to build a caring, effective service.

Two of the respondents reported that they do not let their satisfaction or dissatisfaction influence their work performance: 'Work is work', as stated by a dentist.

Although some dental staff members recognize the limited resources, they are still optimistic about delivering acceptable oral health services to the public. However, it can be assumed that a certain proportion of the dental staff has a negative attitude towards their job, for various reasons, which influences their job satisfaction negatively, and thus contributes negatively to their job performance, as reported by Robbins (1998).

The fact that as many as 39% did not answer the question about whether job satisfaction was directly influencing their job performance, is interesting. While some gave positive and negative answers, over one third seemingly did not bother to answer. This may be indicative of a pessimism about their job and the likelihood of imminent improvement.

### **5.3 Non-work related factors**

Participants mentioned family life and family responsibility (9%), the condition of the roads (7%) and the weather (6%) as non-work related factors to be addressed to improve their job satisfaction. There was no single non-work related factor that stood out that participants mentioned that should be addressed to improve their job satisfaction.

This could be because the dental staff regard their work-related factors as

something that can be improved, as opposed to their non-work related factors. Alternatively, the dental staff may see their work-related factors as something that needs to be addressed to improve their job satisfaction, and is able to change much quicker or with greater ease than their non-work-related factors.

Therefore, it can be seen that many different issues were identified and explained in this study. This provides a good insight into the job satisfaction of oral health staff in the Northern Cape province.

Low job satisfaction is related to job-related stress (Newton and Gibbons, 2001), and this could affect the quality of the care provided to patients, as stated by Myers and Myers, (2004). These work-related sources causing stress to the dental staff, as related to this study could be as a result of inadequate resources, understaffing, lack of autonomy, safety of the facility, poor career advancement opportunities, inadequate remuneration and financial issues patient factors, and the healthcare system. These work-related stressors could explain why several public dental staff members are dissatisfied with their jobs (Ayers *et al*, 2008a; Leggat *et al*, 2007; Jain *et al*, 2009; Moller and Spangenberg 1996; Myers and Myers, 2004; Thomas and Valli, 2006).

From the literature it can be acknowledged that autonomy, adequate resources, adequate compensation, respect, opportunity for advancement, flexi hours and minimal administrative responsibilities are known to improve job satisfaction of dental staff. The dental staff in the public sector in the Northern Cape would benefit if these factors are addressed.

Policy makers should not only look at service delivery, but how to create a working environment that is optimum for the dentists, dental therapists, oral hygienists, and dental assistants. By identifying areas of concern that affects dental staff's job satisfaction, these specific areas that need attention can be improved (Shugars *et al*, 1990). By increasing the dental staff's job satisfaction, the staff morale can be improved. This will lead to increased productivity and

quality of care (Harris *et al* 2008; Syptak *et al*, 1999). Job satisfaction should be used to motivate and modify the practice styles of dental staff (Gillmour *et al*, 2005), as satisfied practitioners are particularly important for a successful dental practice and the well-being of patients (Puriene *et al*, 2008a)



## **CHAPTER 6. CONCLUSION**

The majority of the dental staff appear to enjoy their working environment (60%), love what their job entails (76%), and would like to continue their job in the long run (74%). However, it appears that the staff are not totally happy or satisfied with their work environment, and have various factors that need to be addressed to improve their job satisfaction

Seventy-four percent of the staff listed resources (human, financial, physical) as the major work-related factor that needs to be addressed to improve their job satisfaction. This is a state of affairs probably seen in most of the provinces and needs to be addressed by management.

Eighty percent of the participants reported they experienced teamwork and 71% appreciated the support of their staff, which is a very positive finding.

Based on Norms, Standards and practice guidelines for primary oral health care, (Department of Health, 2000) and based on the population of the province and of each district, the Northern Cape Provincial Department of Health does, in fact, have a dental staff shortage.

More than half of the participants (56%) agreed that the communication with their administrator is poor. Almost 35% of the participants reported unhappiness with their District Manager/Administrator. Almost 67% of the clinical staff and almost 33% of assistants stated that problems with their administration are factors that need to be addressed to improve their job satisfaction.

Currently, the largest percentage of dental services being offered by the public sector in the Northern Cape consists of minimal oral health promotion and prevention, and emergency relief of pain and sepsis in the form of dental extractions. Thus, not even the basic primary oral health care service package, as required by the Norms, Standards and Practice guidelines for primary oral health

care and the National Oral Health Strategy, is provided to a large percentage of the population of the Northern Cape province.

Just over half of the participants expressed unhappiness about the quality and quantity of equipment, stating that they use inadequate, sub-standard instruments and equipment. The long waiting times for equipment repairs and procurement of stock was also mentioned by the dental staff. The majority of the dental facilities in the Northern Cape province do not have fully functional or sufficient dental chairs, and the 3 mobile dental units in the province, are currently not in use.

The majority of the respondents (63%) stated that their jobs do not make optimal use of their clinical skills. This was especially the case among clinical staff, who also expressed frustration with the limited dental services currently being offered to patients.

The majority (59%) of participants stated that they have no opportunity to improve their clinical skills and expressed a need for continuous professional development, and even a need for post-graduate studies. The opportunity and funds should be made available for staff to improve their clinical skills.

Participants mentioned infrastructure (almost 28%), infection control (almost 20%) and safety (almost 15%) as factors that need to be addressed to improve their job satisfaction.

The dental assistants, in particular, feel they see too many patients per day, and mainly the clinical staff feel that they are too tired to do anything after work.

Only 46% of the participants feel that their income is fair for the work they do. The assistants complained more about their salary, but also stated that the salary they earn is not as important as the satisfaction gained from serving the public – a very positive finding. Furthermore, 80% of participants felt that their job allows them to make a contribution to their community. Whatever the reason, having a

significant proportion of staff who feel that the salary they earn is not as important as serving their community is both interesting and praiseworthy. Such commitment is a very sound foundation on which to build and improve a service that clearly needs improving.

The dental staff seems to be giving of their best despite their current work environment, but expressing a need and willingness to deliver a more comprehensive oral health service that makes full use of their clinical skills, and that is not constrained by a lack of finances or limited treatment options. This is a positive foundation that needs to be built on.

It remains the responsibility of the Department of Health of South Africa to provide adequate oral health services to the public, and to ensure that the dental staff are satisfied with their jobs. 'A satisfied worker is a happy worker' (Robbins, 1998) and will increase client-based/orientated services, as job satisfaction leads to better productivity and quality of care.

Policy makers should not only look at service delivery, but how to create a working environment that is optimum for the dentists, dental therapists, oral hygienists, and dental assistants. By identifying areas of concern that affect job satisfaction, these specific areas can be improved (Shugars *et al*, 1990). By increasing the dental staff's job satisfaction, the staff morale can be improved. This will lead to increased productivity and quality of care (Harris *et al* 2008; Syptak *et al*, 1999). Job satisfaction should be used to motivate and modify dental staff's practice styles (Gilmour *et al*, 2005), as satisfied practitioners are particularly important for a successful dental practice and the well-being of patients (Puriene *et al*, 2008a). Research findings about job satisfaction can be implemented to increase retention rates of dental staff in the public sector.

## **CHAPTER 7. RECOMMENDATIONS**

The oral health services in the Northern Cape province requires urgent attention. The following issues need to be addressed:

1. A clearly defined Oral Health Policy for the Northern Cape province should be developed and implemented. Financial, human and physical resources should be acquired based on adequate planning of oral health services in the province. The policy should include clear job descriptions for all dental staff, planning of prevention of oral disease and oral health promotion programmes, and also needs to make provision for continuous educational development and teambuilding of staff. The policy should be developed with the assistance of dental staff on the ground, and all inputs should be sought before final decisions are made. The dental staff should also be informed about the policy.
2. As a minimum, dental staffing levels need to be increased. More dentists, dental therapists, oral hygienists and dental assistants should be appointed, as specified in the Norms, Standards and Practice guidelines for primary oral health care (Department of Health, 2000). Some redistribution of staff may also be required to reach these norms.
3. A chief dentist should be appointed to guide oral health services in the province, especially for the staff and district managers/administrators. This chief dentist could assist staff to promote consistency, improve service rendering, and help define what oral health targets should be met. The chief dentist could evaluate the dental staff's annual SPMDS appraisal, and could advocate the importance of oral health services to the district manager/administrator, and be consulted by these managers on matters regarding oral health. The chief dentists could be consulted when infrastructure improvement are planned. The chief dentist could also facilitate meetings with dental staff in the districts, and report to the provincial manager when issues arise from the staff, and aid in the

resolution of such issues. The appointment of a chief dentist would reduce the unhappiness of dental staff with their current district managers and provincial manager.

4. An oral hygienist should be appointed for each district, at least. This will improve oral health promotion and disease prevention in the province.
5. All HOD's should be compensated for their efforts. All staff should be placed on the correct OSD scale, and compensated for the inadequacy of the human resource departments and district/provincial management.
6. The provincial manager should be more supportive and communicate better with the dental staff.
7. Adequate infrastructure should be provided for oral health services. Basic services such as water and sanitation in the facilities should be provided where this is lacking at present. The Department of Health should also provide the necessary funds for adequate infrastructure to permit the installation of dental chairs. If the Department of Health is unable to do so, they could acquire funds from private companies. For example, the mines in the region or the local municipality could be consulted for possible assistance. The improvement of infrastructure will contribute to improving infection-control and safety at the facility. Security services should be provided at facilities. Dental staff should be consulted when infrastructure improvements are planned.
8. Sufficient fully functional dental chairs should be acquired and installed. Along with the infrastructure improvements, this will contribute to improving dental staff's working environment and provide optimal use of the staff's skills and deliver more treatment options for patients
9. The salaries of dental assistants need revision. OSD should be

implemented as soon as possible, and staff should be compensated for the delay.

10. Ways should be found to eliminate traveling with used consumables like contaminated needles or gloves and swabs. If a medical waste management company is unable to collect the used consumables or blood products, and there is no other alternative than for the staff to travel with them, these used consumables or blood products should be sealed in containers and should be disposed of at the nearest clinic.
11. Where there are surplus dental assistants at a facility, they should be transferred to where there is a shortage of assistants. Also, temporary transfers of dental assistants should be instituted within the province in cases where a dental assistant would be absent from work for a long period of time, especially at facilities that only have 1 dental assistant.
12. School tooth brushing programmes can be started by the surplus dental assistants in all crèches in the province, with sponsors for toothbrushes and toothpaste sought, if the Department of Health is not able to provide these themselves.
13. Provision should be made for translators at meetings, or for the agenda and notes to be in English, at least. Important discussions and decisions take place during meetings, and miscommunication can be avoided by communicating in a language that is understood by all involved.
14. The mobile dental units should be up and running, or written off if irreparable. Provision should be made for adequate drivers, with valid drivers' licenses. The mobile units should be adequately equipped and stocked, and used to deliver oral health services. If a mobile dental unit is not being used by a district or facility, it should be sent to a district or facility that has a need for it. It could even be sent to another province that is in need of a mobile dental unit.

Whilst one is aware of the continual shortage of financial resources, this should not always be used as an excuse for maintaining the *status quo*. Some issues really need addressing urgently.

From the findings of this study, it is clear that the above recommendations will contribute positively to improving job satisfaction of dental staff in the public sector in the Northern Cape and the oral health of the community.



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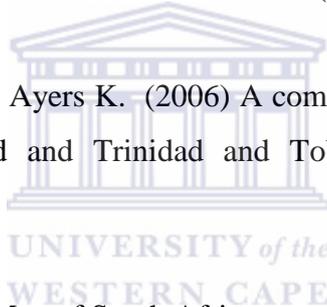
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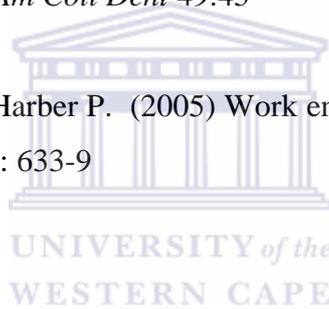
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**Appendix 1: Questionnaire for dental staff**

**Job Satisfaction of Dental Staff in the Public Sector in the Northern Cape**

Occupational details (Please tick the relevant block, or insert details where applicable)

1. Occupation:	Dentist	Dental Therapist	Oral Hygienist	Dental Assistant
2. Gender	Male	Female		
3. Age				
4. Year in which you qualified?				
5. How long have you been in government service in this occupation?				
6. In which area is your clinic situated?	Urban	Rural	Both	

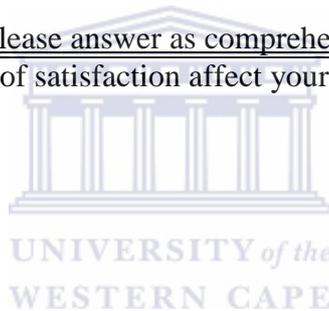
Work environment (Please tick the relevant block)

	Agree Strongly	Agree	Unsure	Disagree	Disagree Strongly
7. I enjoy my work environment					
8. The staff at my clinic eases my task by working as a team					
9. I have the support of my staff at all times					
10. The unit is under-staffed					
11. Communication with our administration is poor					
12. My dental equipment is of good standard					
13. The clinic is a safe working environment					
14. I see too many patients per day					
15. My income is fair for the work I do					
16. The salary I earn is not as important as the satisfaction gained by serving the public					
17. A public service staff member has no incentive for improving performance					
18. My income allows me to live comfortably and provide for my needs					

	<b>Agree Strongly</b>	<b>Agree</b>	<b>Unsure</b>	<b>Disagree</b>	<b>Disagree Strongly</b>
19. My job allows me adequate time for my personal life					
20. I am too tired to do anything after hours					
21. My job allows me to make a contribution to my community					
22. My job makes optimal use of my skills					
23. I have no opportunity to improve my clinical skills					
24. I love what my job entails					
25. I would like to continue with my job in the long term					

Open-ended questions: Please answer as comprehensively as possible

26. How does your level of satisfaction affect your work performance?



27. Which work-related factors do you think should be addressed to improve your job satisfaction? List the main factors

28. Which non-work related factors influence your job satisfaction? List the main factors

*Thank you for your assistance in completing this questionnaire.*

## Appendix 2. Project Registration



**Office of the Deputy Dean**  
**Postgraduate Studies and Research**  
Faculty of Dentistry & WHO Collaborating Centre for Oral  
Health



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UNIVERSITY OF THE WESTERN CAPE  
Private Bag X1, Tygerberg 7505  
Cape Town  
SOUTH AFRICA

**Date: 19<sup>th</sup> October 2012**

For Attention: Dr E Christiaans  
**Community Dentistry**

Dear Dr Christiaans

**STUDY PROJECT: Job satisfaction of dental staff in the public sector in the Northern Cape**

**PROJECT REGISTRATION NUMBER: 12/9/11**

**ETHICS:       Approved**

At a meeting of the Senate Research Committee held on Friday 19<sup>th</sup> October 2012 the above project was approved. This project is therefore now registered and you can proceed with the study. Please quote the above-mentioned project title and registration number in all further correspondence. Please carefully read the Standards and Guidance for Researchers below before carrying out your study.

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

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

Yours sincerely

Professor Sudeshni Naidoo

## STANDARDS AND GUIDANCE FOR RESEARCHERS

*Research should only be performed by persons with scientific and clinical qualifications appropriate to the project, who are familiar with the ethical standards applicable to the research, who submit the necessary applications and protocols to the UWC Faculty and Senate REC to review, and who carry out research in compliance with the requirements established by the UWC Senate REC and Research Policies.*

### 1. Submitting an Application

- 1.1 An application for review of the ethics of proposed biomedical or other research should be submitted by a qualified researcher, who is directly responsible for the ethical and scientific conduct of the research.
- 1.2 Student proposal should be submitted under the responsibility of a qualified supervisor/faculty member involved in the oversight of the student's work.
- 1.3 All documentation required for a thorough and complete review of the ethics of the proposed research should be submitted as specified in the UWC SRC and Research Policy procedures.

### 2. Conduct of Research

- 2.1 The research should be conducted in compliance with the proposal approved by the UWC SRC.
- 2.2 No deviations or changes should be made to the approved proposal, or in following it, without prior approval of the SRC, except where immediate action is necessary to avoid harm to the research participant(s). In such a case, the SRC should be informed promptly of the changes/deviations made, and the justification for doing so.
- 2.3 The SRC should be informed of any changes at the research site that significantly affect the conduct of the research/trial, and/or increase in the risks of harm to participants.

### 3. Safety Reporting

- 3.1 All serious adverse events as defined in the proposal and any unexpected adverse events should be promptly reported to the SRC as described in the proposal and according to the procedures established by the SRC and UWC Research Policy.
- 3.2 Any recommendations provided by the SRC in response to such reporting should be immediately implemented.

### 4. Ongoing Reporting and Follow-up

- 4.1 *Progress reports have to be submitted annually for all registered research projects*
- 4.2 In the case of early suspension/termination of a study, the applicant should notify the REC of the reasons for the suspension/termination; provide a summary of the results obtained prior to prematurely suspending or terminating the study; and describe the manner by which enrolled participants will be notified of the suspension or termination and the plans for care and follow-up for the participants.

4.3 Researchers should inform the Faculty and SRC when the study is completed or cancelled.

4.4 If the SRC terminates or suspends its approval, the investigator should inform the institution under whose authority the research is being conducted, the sponsor of the research or any other applicable body.

### **5. Information to research participants**

The researchers have an obligation to keep the research participants and their communities informed of the progress of the research at suitable timeframes in simple, non-technical language. Notification is particularly important when:

- The research is modified, suspended, terminated or cancelled.
- Any changes occur in the context of the research that alters the potential benefits or risks.
- The research project is completed.



## Appendix 3. Project Approval

13-10-2014 40

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DEPARTMENT OF HEALTH

I IPHAPHA LA BOITEKANELO

ISIGULU LCZEMPILO

DEPARTEMENT VAN GESONDHEID

Department of Health  
Private Bag X5049  
KIMBERLEY  
8301

Imagama :  
Iphaphala :  
Imibuzo :  
Nawak :  
Reference :  
Ishupak :  
Isifundo :  
Ungwamaq :  
Ref: 053 830 0666

Ms. O. Baitswe  
Tel: 053 830 0629  
Fax: 053 830 0666

Date :  
Imibuzo :  
Imibuzo :  
Imibuzo :  
12 December 2012

NC PHREC Reference Number: NC2012/003

**TITLE: TO DETERMINE JOB SATISFACTION OF DENTAL STAFF IN THE PUBLIC HEALTH SECTOR IN THE NORTHERN CAPE**

Dear Dr. EJ Christiaans

The application to conduct the study was received and has been considered by the Northern Cape Provincial Health Research and Ethics Committee.

Approval is hereby granted to conduct the above-mentioned research in the Northern Cape.

However, the Committee wishes to make the following recommendation:

- Study period be included in the research topic

The following conditions have to be noted:

1. The research project shall be conducted at no cost to the Northern Cape Department of Health
2. The Northern Cape Senior Management Committee will be briefed on the outcome of the study prior to publishing.

The Committee wishes you the best as you conduct your study

Yours Sincerely

  
MS PHYLLIS BAITSWE  
CHAIRPERSON: PHREC

12/10/2012  
DATE



We are committed to achieving our vision through a decentralised, accountable, accessible and sustainably improving health care system within equitable structures. Our caring, multi-cultural, efficient personnel will use evidence-based, responsive health care and training partnerships for the benefit of our clients and nations.

## **Appendix 4: Information sheet for participants and informed consent**

### **TO WHOM IT MAY CONCERN**

I, Dr Erin Christiaans, was employed as a dentist by the Department of Health: Northern Cape. I held the position as the senior dentist of the Siyanda District in Upington. I am currently registered as a Masters Student at the Department Community Oral Health, University of the Western Cape.

I am required to do research for the thesis which forms part of the requirement for this degree. For my research project, I have undertaken to do a descriptive study to assess job satisfaction of dental staff in the public sector in the Northern Cape. In order to carry out this study, I will need dental staff (dentists, dental therapists, dental assistants, oral hygienists) to participate by filling in a questionnaire that I will be sending to all staff. There is no risk involved in participating in this study. All information gathered in this study will be strictly confidential. No one will have access to this information except me, the principal investigator. No names will be used in the reports of this study, it will be strictly anonymous. Your participation will be voluntary and you may withdraw from the study at any time. If you have any enquiries about this study, please feel free to contact me, Dr Christiaans on contact number 072 605 4541.

Would you please assist me by completing the questionnaire? Please sign this consent form (below), and send it to me, but keep it separate from the completed questionnaire when handing it in. That way I will know that you have sent your form, but it will remain anonymous.

Thank you for your cooperation.

Yours sincerely

Dr EJ Christiaans (BChD, PDD: Paeds)

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**I, the undersigned, agree to participate in the study by completing the questionnaire.**

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_