Interacting forces influencing private dental practice in South Africa: Implications for dental education

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INTRODUCTION

Healthcare professionals are being challenged by a whole host of outside pressures and forces. The emerging health-care environment and traditional ways of thinking are mutually exclusive. Innovative thinking is required as accelerating change, increasing complexity, intensifying competition and expanding consumerism will be characteristic of the 21st century[1].

The situation with regard to the dental profession in South Africa (SA) - private dental practice in particular - is similarly being influenced by these factors which can be described as the interacting forces influencing the profession in SA. Their effects are channelled through the external environment and through dental education (Figure 1).

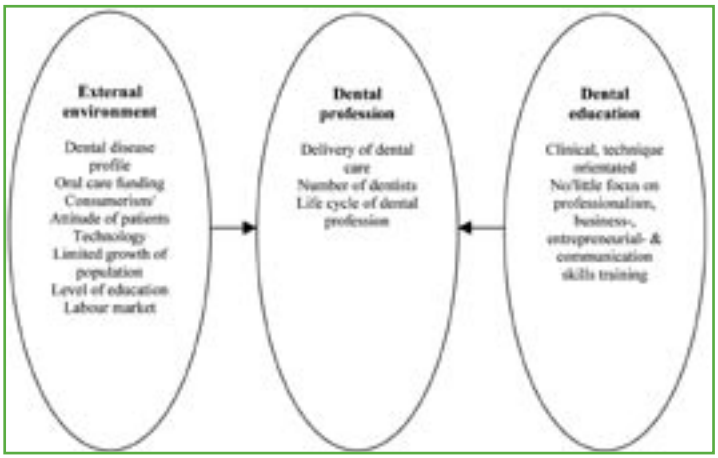

Figure 1: Interacting forces influencing the dental profession in SA.

THE DENTAL PROFESSION

Delivery of oral care in SA

The South African population can *broadly* be divided into two major markets as far the delivery of dentistry is concerned (Table 1): 20% of the population is being treated in the private sector comprising approximately 70% of the dental practitioners, while the remaining 80% is being treated in the public sector by approximately 30% of the available dental practitioners[2]. Dental services in the public sector can be described as satisfying a basic need for the relief of pain and sepsis, as well as primary dental care such as simple restorations and dentures. In the private sector, however, dental treatment is mainly driven by guaranteed payment by third party insurers (medical funds) for services rendered by a dentist.

Table 1: Delivery of dental health care in SA

Proportion of population	Dental care rendered by proportion of dental practitioners	Dental insurance (Member of a medical fund)	Type of dentistry
20%	70% (in Private sector)	Yes (Majority)	Mainly needs-driven; partly demands-driven
80%	30% (in Public sector)	No (Minority)	Needs-driven

Membership of a medical fund is the determining factor of a member's demand for dental treatment, such as frequency of visits to the dentist, as well as the extent of dental treatment he/she is prepared to accept[3].

In turn, the frequency of visits and the extent of dental treatment determine the "busyness" of dentists in the private sector. Research done in 1999 among private dental practitioners in SA indicated that 55.8% of respondents were not sufficiently busy and required more patients. The responses indicated that an average of 12.7 hours per week were available to treat additional patients[4]. These results are confirmed by research conducted in 1999 among dentists with regard to the reasons why dentists left SA[5] .The second most important reason for departure is the 'lack of profitability of dentistry in SA. (Table 2).

Table 2: Ten reasons in order of importance why South African qualified dentists left SA to practise abroad (5)

1. Crime and violence
2. Lack of profitability of dentistry in SA
3. Political uncertainty/instability
4. Poor economic future/unstable economy
5. Uncertain professional prospects
6. Medical schemes - poor/irregular payment
7. Insecure/unpredictable future
8. No future for children/lowering of educational standards
9. Already settled in UK
10. Policy of apartheid

Number of dentists in SA

According to the 2004 annual report of the South African Dental Association (SADA), 4235 dentists were registered

with the Health Professions Council of SA (HPCSA) in 1996[6]. This figure had increased to 4616 dentists by 2004 (Table 3). However, about 200 dentists qualified annually at the dental schools in SA. This implies that the number of dentists should have increased by 1600 (natural attrition not taken into account) between 1996 and 2004, instead of the 381 as reflected in Table 3.

Table 3: Number of dentists registered with the HPCSA: Period 1996 - 2004[6]

Year	1996	1997	1998	1999	2000	2001	2002	2003	2004
Number of dentists	4235	4235	4298	4347	4472	4518	4272	4329	4616

Furthermore, according to the Dental Traders' Association of SA, the number of dentists who qualified in SA and are now practising in the United Kingdom, Canada, The Netherlands, Australia or New Zealand, was estimated in 2004 to be 1500[7]. This implies that the number of dentists in SA registered with the HPCSA increased by between 37% and 45% between 1996 and 2004 depending on the number of dentists practising abroad who are still registered with the HPCSA.

THE EXTERNAL ENVIRONMENT

Dental disease profile

Due to the influence of fluoride in dentistry, dental disease patterns have changed to such an extent that the patient has to be made *aware* of his/her dental disease through education: in order to accept the dentist's proposed treatment plan, a *demand* has to be created through eloquent treatment plan presentation skills by the dentist[8].

Oral care funding in SA

Oral care funding - guaranteed payment by third party insurers (medical funds) for dental treatment rendered by a dentist - plays an important part in SA in financing dental care in the private sector and provides many dental practitioners with a secure source of income (PJ van Wyk & JG White, XXXVII Scientific Congress of the International Association of Dental Research, South African Division).

However, research showed that in SA the proportional pay-out for dental care by medical funds during the period 1985 - 2004, was characterised by a steady decline: 12.6% of medical funds' total expenditure was spent on dental care in 1985, while this figure dropped to 3.8% by 2004 (PJ van Wyk & JG White, XXXVII Scientific Congress of the International Association of Dental Research, South African Division) (Figure 2). This steady decline in proportional pay-out for dental care by medical funds could probably be attributed

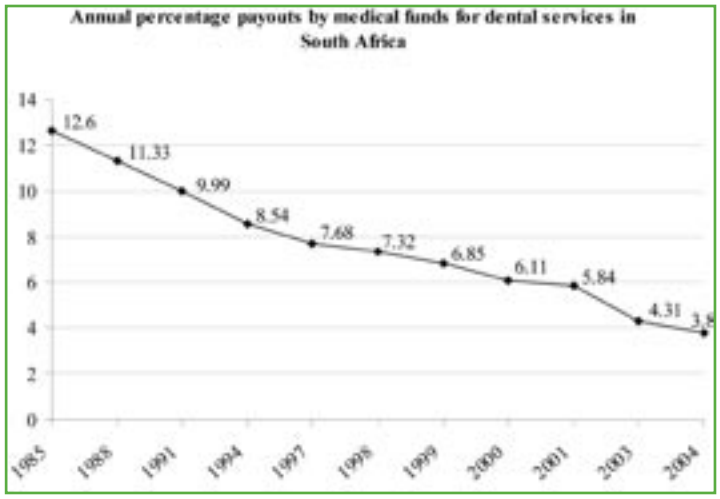

Figure 2: Oral care funding by medical funds in SA: 1985 - 2004 (PJ van Wyk & JG White, XXXVII Scientific Congress of the International Association of Dental Research, South African Division)

to, amongst others, the increasing cost of hospitalisation and the cost of medication (PJ van Wyk & JG White, XXXVII Scientific Congress of the International Association of Dental Research, South African Division).

Consumerism and the attitude of patients

Consumerism - described as a shift in decision-making power from the supplier/provider to the consumer - has significant implications for the dentist of the 21st century: patients expect to be involved in treatment decisions and to have a quality experience which ideally should exceed their expectations while visiting the dental practice[1].

According to the literature, the single most important factor contributing to a decline in loyalty towards healthcare professionals is the changing attitude of patients. Today's patients exercise more options than ever before. If a practice does not offer what the patient wants or needs, they will not, as a result of what they perceive to be a disappointing experience, be prepared to enter into a long-term relationship with the dentist. They will do business with one of the competitors[9]. Should, however, the practice exceed their expectations, their loyalty will be confirmed.

Technology

Digital radiography, intra-oral cameras, etc. are becoming increasingly important as standard marketing tools in the dental practice of the 21st century[8].

Growth of the South African population

Table 4 shows that the South African population has increased by 14.5% between 1996 and 2004[10]. This figure should be compared with the increase of the number of dentists who qualified in SA for that period of between 37% and 45%.

Table 4: South African population[10]

Year	Black African	Indian/Asian	Coloured	White	Total	Percentage increase
1996	31 127 631	1 045 696	3 600 446	4 434 697	40 683 573	
2001	35 416 168	1 115 467	3 994 505	4 293 640	44 819 778	10.2
2004	36 900 000	1 200 000	4 100 000	4 400 000	46 600 000	14.5

Level of education of the South African population

Table 5 compares the proportions of the SA population achieving different levels of education between 1996 and 2001. The percentage that attained a grade 12 or higher qualification increased from 22.6% in 1996 to 28.8% in 2001[10]. This may well be that portion of the population who can be targeted for comprehensive dentistry in the future as it is likely that these people will have the required resources at their disposal.

Table 5: Level of education by percentage of SA population aged 20 years and older[10]

Year	No schooling	Some primary	Complete primary	Some secondary	Grade 12	Higher
1996	19.3	16.7	7.5	33.9	16.4	6.2
2001	17.9	16.0	6.4	30.8	20.4	8.4

Economic profile of the South African labour market

Table 6 illustrates that the South African labour market can broadly be divided into three classes (categories) of 15 million people each[11]. The *upper class* can be described as a rich middle class (or bourgeoisie), comprising about four million Whites and 11 million Black Africans, Asians and Coloureds. They earn about 85% of the total income of the population. The *middle class* of 15 million people can be described as the working class, comprising about 380 000 Whites and the remainder Black Africans, Asians and Coloureds. This class earns about 10% of the total income of the population. The socio-economic situation of the upper half of the working class can be regarded as satisfactory, while the lower half can be regarded as poor. The *bottom class* can be described as a typical non-working class (underclass or lumpenproleteriate). This class comprises 0.4% Whites, 0.7% Asians, 4.2% Coloureds and 94.7% Black Africans. This bottom class of 15 million people earns about 5% of the total income of the population and should be regarded as precariously poor as they have no resources at their disposal that will ensure a materially civilized and humane life style.

Table 6: South Africa's highly stratified community[11]

Number of people (Year: 2004)		Description of class	Socio-economic status
15 million		Middle class	Affluent middle class
15 million	7.5 million	Working lower class	Satisfactory
	7.5 million		Poor
15 million		Non-working lower class	Precariously poor

Although 22 million South Africans (or 48.5%) are living below the poverty line at present, the affluent middle class and the upper half of the working class - comprising about 22 million people - may well be the portion of the population who can be targeted for comprehensive dentistry in the future, as this portion of the population will have the required (economic) resources at their disposal to afford comprehensive dentistry[3].

Table 7 illustrates comparative data by population group for the 1996 and 2001 censuses of persons aged 15 to 65 years according to their labour market status. The Black African and Coloured population groups show noticeably higher unemployment rates in 2001 than in 1996, the rates increasing by 3.9% and 5.3% respectively, over the five years[10].

The rate of unemployment in SA poses a major threat to the potential demand for comprehensive dentistry. In view of the ideal dentist: population ratio of 1: 4500[4], and given the disproportionate growth in the number of dentists compared with the growth in that portion of the South African population who have the resources at their disposal to demand comprehensive dentistry, alarm lights are starting to flash[3].

Life cycle of the dental profession

The external environment in which dentistry is being practised in SA has indeed changed over the past 20 - 30 years and has necessarily influenced the life cycle of the dental profession (Figure 3). It has been suggested that any product, service, company or profession has a life cycle which is characterised by the following five phases[12]:

(i) An introduction phase
(ii) A growth phase
(iii) A maturity phase
(iv) A declining (transition) phase
(v) A revival phase.

The first three phases of the life cycle of the dental profession could be described as the restorative era (JG White, personal communication). As this restorative era was caries- and insurance-driven, the patient

Table 7: South African labour market[10]

Year	Black African		Asian/Indian		Coloured		White	
	Employed	Unemployed / Not economically active	Employed	Unemployed / Not economically active	Employed	Unemployed / Not economically active	Employed	Unemployed / Not economically active
1996	31.6	68.3	51.3	48.7	51.3	48.7	63.6	36.4
2001	27.8	72.2	49.2	50.9	46.1	54.0	61.4	38.6

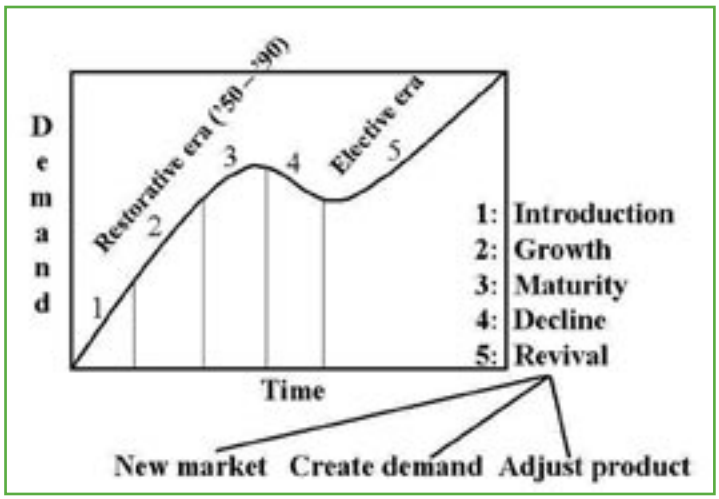

Figure 3: The life cycle of the dental profession

- was aware of his/her dental need to have the carious lesions restored, and
- readily accepted the proposed treatment because of the availability of dental insurance.

However, the changing disease profile together with decreasing medical funds' payout for dental treatment has caused the life cycle stage of the dental profession in SA to be in a transition phase. This is currently moving from the caries- and insurance-driven stage or restorative era to the patient-driven stage or elective era[8]. The patient-driven stage is characterised by a shift in the decision-making power from the dentist to the patient[8].

In order to "revive" the profession and take it into the fifth or revival phase, three strategies are necessary[12]:

(i) *Generation of a "new"* market *through education of the patient by means of eloquent treatment plan presentation skills*. It is clear from Table 7 that this "new" market comprises the affluent middle class and the upper half of the working class comprising about 22 million people of whom 17,5 million people are African Blacks, Asians and Coloureds. As has been previously noted, they may well be the relatively affluent portion of the population who can be targeted for comprehensive dentistry in the future[3].

(ii) *Adjustment of the dental "*product*" (dental treatment) offered by the dentist to the patient by addressing the emphasis on current clinical skills training in dental schools*. During the restorative era excellent skills in this discipline were sufficient to ensure a viable dental practice. The elective era, however, requires that the dentist be empowered to render comprehensive dentistry. A valid question to raise at this point in time is whether the current training in SA ensures adequate clinical skills in terms of restorative dentistry and prosthodontics, aesthetic (cosmetic) dentistry, preventative dentistry, orthodontics, periodontics and surgery to address the changed needs, perceptions and demands of the patient.

(iii) *Creation of a* demand *among the "new" market for the adjusted "product" through eloquent treatment plan presentation skills*.

DENTAL EDUCATION IN SA

The training that undergraduate students receive in dental schools in SA does not fully reflect the changing external environment. Current curricula are intensely technique-oriented, and as a result, students often do not receive adequate training in professionalism, business, entrepreneurial and communication skills. This occurs because of curriculum time restraints and perhaps the lack of interest shown therein by dental schools[3].

It is a well accepted fact among members of the dental profession worldwide that, given the business-like nature of a dental practice, a dentist should not only be equipped with clinical skills, but also with non-clinical management skills in order to ensure a viable and successful career. This is also (and especially) true for the competitive South African dental market[3].

DISCUSSION

It would be relevant to ask what impact a continuous decrease in the proportional pay-out for dental care by medical funds will have on the individual patient's demand for comprehensive, optimum dental care[3].

The lack of "busyness" among dentists in the private sector could well result from this decreased allocation of funding[4]. If so, there could be an enormous impact on the dental profession and the delivery of dentistry. Practitioners serving the private sector (i.e. 80% of SA dentists) will be particularly affected. This may well have an adverse effect on the viability of a private dental practice as well as the attractiveness of the profession as a whole[3]. Applications from prospective/potential students for training in dentistry will in turn diminish. The very existence of dental schools will eventually be brought under pressure! In order to prevent this scenario, some intervention will be needed to convert the patients' need for basic dentistry into a demand for comprehensive dentistry despite having no dental insurance[3].

In order to stimulate the demand for comprehensive dentistry, the appreciation of what dentistry can offer as well as patient loyalty towards the dentist will have to be enhanced. Dental tertiary institutions must play a major role in equipping dental students with skills that will empower the dentist to create a demand for comprehensive dentistry by a loyal dental population[13].

Knowledgeable, sophisticated customers with a growing concern about value for money are increasingly "shopping around" for second opinions because they are questioning the value of professional services and the judgment of practitioners. Furthermore, the mass communication media and

accessibility of computerised information all lead to greater expectations with regard to speed and efficiency of service from medical and dental practitioners[14].

The rapid decline in the funding of oral health care, patients' need for comprehensive dentistry that is not necessarily being reflected in their demands, a slower growing patient pool (14,5%) as compared with a faster growing dentist pool (37 – 45%) and the cost structure of the average dental practice are the challenges that are facing dentistry in SA today[3]. Alarm lights are beginning to flash.

In view of the above, a valid question to ask is, "What is required today of the SA dentist in order to ensure a viable dental practice in the competitive external environment?" As is illustrated in Table 8, the viability will be enhanced if the dentist is able to[8]:

- Differentiate his/her practice from all the rest, and
- Create a demand among patients for comprehensive dentistry.

Table 8: Strategies to enhance a dental practice's viability[8]

Differentiate the practice	*Create a demand*
High performing team	Eloquent treatment plan presentation
Customer relationship skills	Affordable dentistry for more patients
Organised practice	
Professional management	
Total Quality Management	

Table 8 illustrates the required profile of the 21st century dentist, namely that the dentist needs not only to have excellent clinical skills, but also excellent non-clinical skills (JG White, personal communication) (Figure 4).

Hence, the 21st century SA dental practitioner is required to possess a specific profile in order to be competitive in the dental market (JG White, personal communication) (Figure 4).

The above profile includes excellent clinical- as well as non-clinical skills and suggests a specific focus on the training of business, entrepreneurial and communication skills. As a result, in order to empower the dentist to create a loyal patient who has a *demand* for comprehensive dentistry, undergraduate training should be specifically focused on the dentist-patient relationship (relational communication skills of the dentist).

Figure 4 illustrates the layers of differentiation which a patient expects to encounter in a 21st century dental practice (JG White, personal communication):

- Professional behaviour by the dentist (Professionalism)

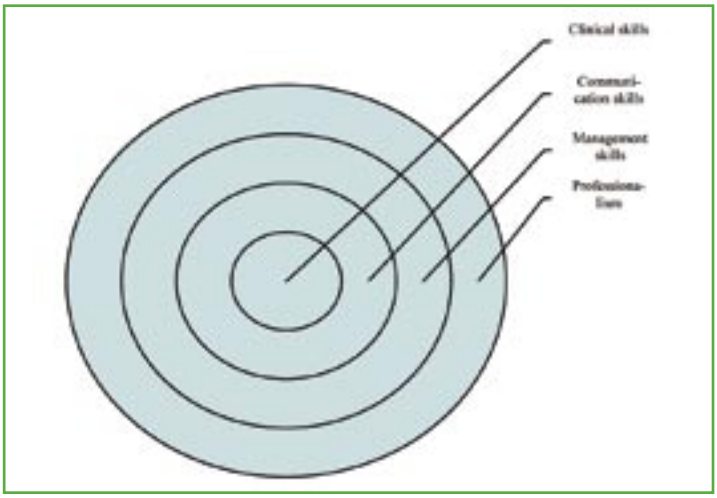

Figure 4: Profile of the 21st century dentist

- Management skills
- Communication skills
- Clinical skills.

As the patient (consumer) moves through each layer of differentiation, he/she determines at each respective layer whether his/her expectations are being met, or are being *exceeded*. Should the latter be the case, the patient's demand for comprehensive dentistry is being positively influenced and as a result the patient becomes more prepared to accept the dentist's proposed treatment (JG White, personal communication).

It is clear that the dentist-patient relationship is a crucial factor determining the success of the profession in this era of consumerism[3,12]. A bonded relationship between the dentist and patient needs to be established as the elective era requires a lot more attention to the psychosocial dimensions of the patient[3]. The elective era will be characterised by the following in order for a dental practice to achieve its financial goals (JG White, personal communication):

- A sound dentist-patient interaction
- Comprehensive examination of the patient
- Excellent diagnostic skills by the dentist
- Eloquent treatment plan presentation skills by the dentist
- Acceptance of proposed comprehensive treatment by the patient.

CONCLUSION

Currently the training received by undergraduate students in SA does not fully reflect the changing external environment[3]. The curricula are still intensely clinically- and technique-orientated, and as a result, students often do not receive adequate training in professionalism, business, entrepreneurial and communication skills. Dental schools in SA are still reluctant to allocate the necessary resources (time and personnel) in order to optimise the teaching of managerial skills because of curriculum time restraints and possibly because of a lack of interest[3].

This leads to a lack of integration of theory and application which is not beneficial to the holistic training of students. It is a well-known principle of strategic management that an organisation's structure must support its strategy. Therefore, no educational intervention *strategy* to train an adequately skilled dentist - empowered to be viable and successful in the competitive SA dental market - will be successful if a corresponding adjustment to the curriculum *structure* is not implemented[3].

Dental schools in SA should, as a matter of urgency, take cognisance of the changing external environment. While the *training* in SA dental schools continues to not reflect the changes in the external environment, dental practitioners will not succeed in *practising* comprehensive dentistry characterised by professionalism, business, entrepreneurial and communication skills.

Decision-makers in dental schools should regain the initiative to become innovative leaders in order to ensure the training of skillful dental practitioners – empowered to create viable dental practices in a demanding and challenging external environment! Therefore, dental schools in SA should, as matter of urgency, revisit the following key issues if they wish to remain relevant in training a competitive and skillful dentist (Figure 5):

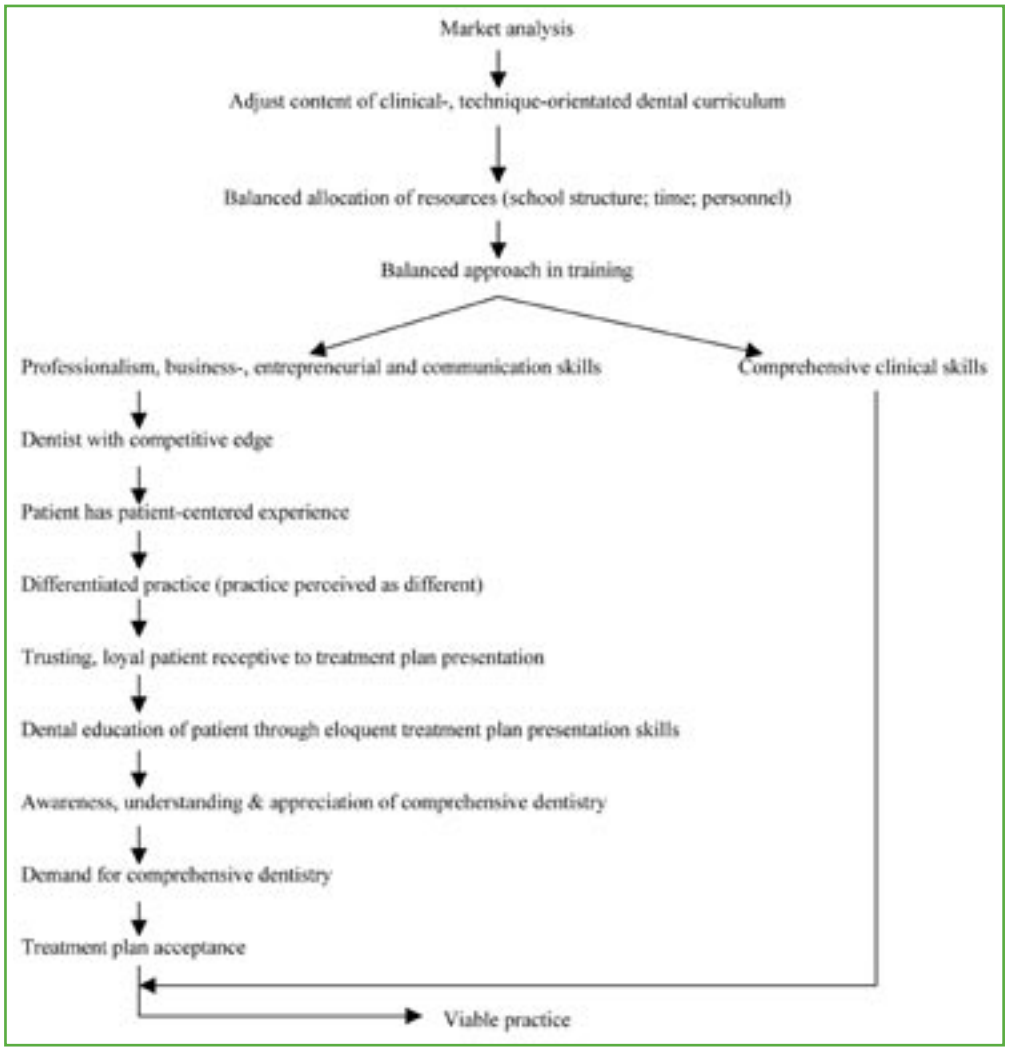

Figure 5: Dental schools' educational role to revive the dental profession in SA (3)

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The rest of this article's references (7-13) will be available on www.sadanet.co.za

CONFLICT OF INTEREST. NO CONFLICT OF INTEREST WAS DECLARED