PHASE 1 MACRO-ANALYSIS OF THE SOUTH AFRICAN DENTAL MARKET

CHAPTER 2 INTERACTING FORCES INFLUENCING DENTISTRY IN SA

2.1 Introduction

A whole host of outside pressures and forces challenges healthcare professionals. The emerging healthcare environment and traditional ways of thinking are mutually exclusive. The emerging healthcare environment demands innovative thinking as accelerating change, increasing complexity, intensifying competition and expanding consumerism will be characteristic of the 21st century (8).

The situation with regard to dentistry in SA is similarly being influenced by these abovementioned factors, namely accelerating change, increasing complexity, intensifying competition and expanding consumerism. The interacting forces influencing dentistry in SA, namely the dental profession, the dental market and dental education, are illustrated in Figure 2 (below) and the discussion that follows.

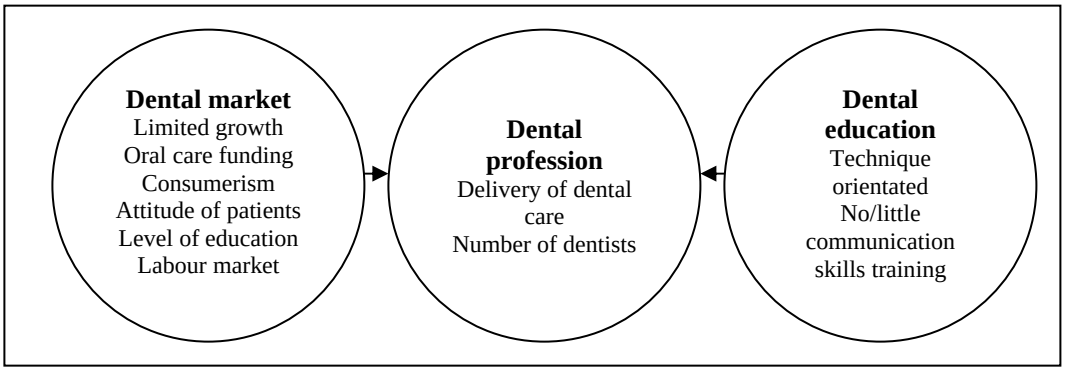


Figure 2 Interacting forces influencing dentistry in SA

2.2 The dental profession

2.2.1 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 3, below): 20 per cent of the population is being treated in the private sector by approximately 70 per cent of the dental practitioners, while the remaining 80 per cent is being treated in the public sector by approximately 30 per cent of the available dental practitioners (9). The need for dental services in the public sector can be described as 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, as opposed to the public sector, the need for dental treatment is mainly driven by guaranteed payment by third party insurers (medical funds) for dental treatment rendered by a dentist.

Table 3 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	Mainly needs-driven; partly demands-driven
80%	30% in Public sector	No	Needs-driven

Membership of a medical fund is the determining factor of a member's frequency of visits to the dentist, as well as the extent of dental treatment he/she is prepared to accept (Table 4, below).

Table 4 Relationship between medical fund membership and demand for dental treatment

Medical fund membership	→	Frequency of visits
	→	Extent of dental treatment (Needs-driven dentistry)

In turn, the frequency of visits and the extent of dental treatment determine the "busyness" of dentists in the private sector. As far as the "busyness" of dentists is concerned in the private sector, research done among private dental practitioners in SA indicated that 55.8 per cent of respondents were not sufficiently busy and as a result required more patients. Respondents indicated that an average of 12.7 hours per week were available to treat additional patients (10). These statistics relate to research conducted among dentists with regard to the reasons why dentists left SA (11): the second most important reason why dentists left SA, is the 'lack of profitability of dentistry in SA' (Table 5, below).

Table 5 Ten most important reasons why South African qualified dentists left SA to practise abroad (11)

1.	Crime and violence
2.	Lack of profitability of dentistry in SA
3.	Political uncertainty/instability
4.	Poor economic future/instable 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

2.2.2 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 (12). This figure increased to 4616 dentists in 2004 (Table 6, below). However, about 200 dentists qualified annually at the four dental schools in SA. This implies that the number of dentists should have increased by 1600 between 1996 and 2004, instead of the 381 as reflected in Table 6.

According to the Dental Traders Association of SA, the number of dentists who qualified in SA and are practising in the United Kingdom, Canada, The Netherlands, Australia or New Zealand can be estimated at 1500 (13). If these 1500 practising dentists practising abroad are added to the 4616 dentists registered with HPCSA in 2004 as reflected in Table 6, the number of dentists who qualified at South African dental schools during the period 1996 - 2004, will have increased by about 45 per cent.

Table 6 Number of dentists registered with the HPCSA for the period 1990 - 2004 (12)

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Number of dentists	3775	3944	3998	4024	4029	4102	4235	4235	4298	4347

Year	2000	2001	2002	2003	2004
Number of dentists	4472	4518	4272	4329	4616

2.3 The dental market

2.3.1 Growth of the South African population

Table 7 (below) shows that the South African population has increased by 14.5 per cent during the period 1996 - 2004 (14). This means that the number of dentists, who qualified in SA between 1996 and 2004, exceeded the growth rate of the population in SA by almost three times for the same period.

Table 7 South African population (14)

Year	Black African	Indian/Asian	Coloured	White	Total
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
2004	36 900 000	1 200 000	4 100 000	4 400 000	46 600 000

2.3.2 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 guaranteed source of income.

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 per cent of medical funds' total expenditure was spent on dental care in 1985, while during 2004 this figure dropped to 3.8 per cent (15) (Figure 3, below).

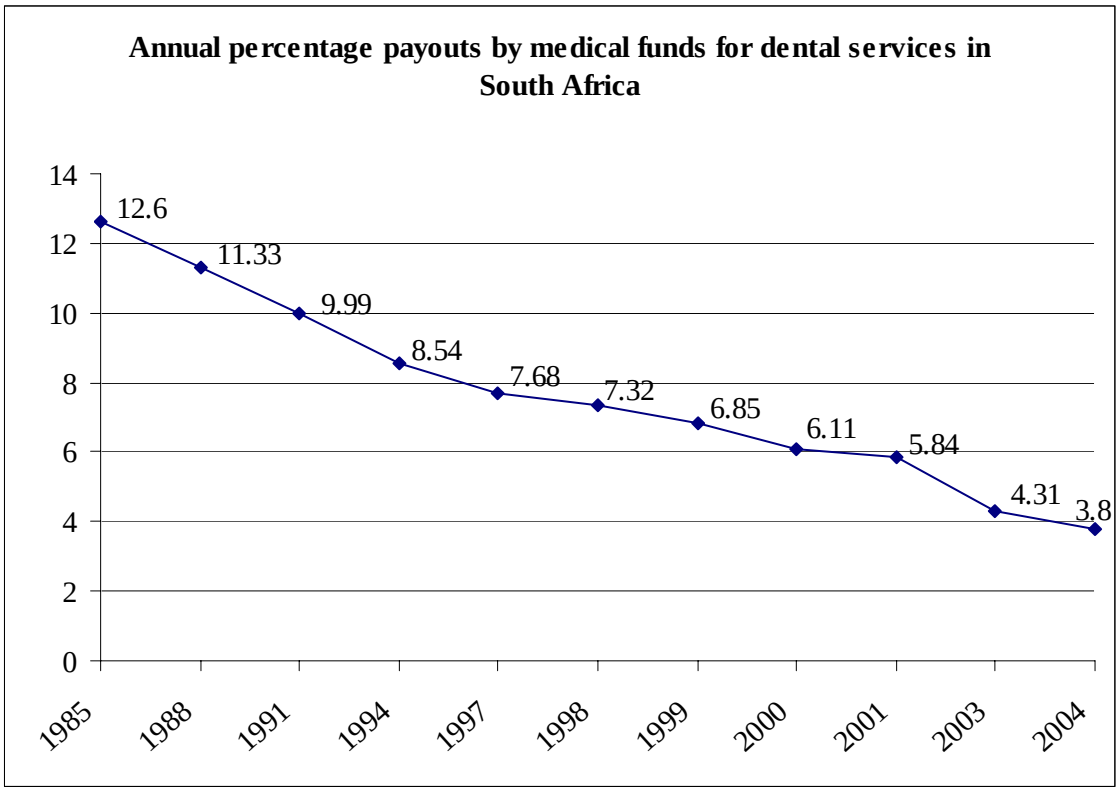


Figure 3 Oral care funding in SA: 1985 - 2004 (15)

It would be relevant to ask what impact this continuous decrease in the proportional pay-out for dental care by medical funds will have on a patient's *demand* for comprehensive, optimum dental care. This decline in oral health care funding may have an enormous impact on the dental profession in general and the delivery of dentistry in particular. Fewer patients from the 20 per cent segment of the population may make use of dental services rendered by the 80 per cent of dentists in the private sector due to financial constraints caused by a lack of dental insurance. 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.

Applications from prospective/potential students for training in dentistry will in turn be adversely affected. As a result, the continued existence of dental schools will eventually come under pressure. In order to prevent this scenario, some intervention will be needed to convert patients' need for basic dentistry into a demand for comprehensive dentistry despite having no dental insurance.

In order to stimulate the demand for comprehensive dentistry among patients without dental insurance, patients' appreciation of what dentistry can offer and loyalty towards the dentist will have to be enhanced. As a result, dental tertiary institutions will 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 (16).

2.3.3 Consumerism and the attitude of patients

Consumerism has significant implications for the dentist of the 21st century: patients expect to be involved in treatment decisions and to have a quality experience exceeding their expectations while visiting the dental practice (8).

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, or if the interaction with the dentist does not *exceed* their expectations, they will not, as a result of their disappointing experience, be prepared to enter into a long-term relationship with the dentist. They will do business with one of the competitors (17).

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 computer technology with its numerous advantages lead to greater customers' expectations with regard to speed and efficiency of service from medical and dental practitioners (18).

2.3.4 Level of education of the South African population

Table 8 (below) illustrates the component of the South African population, which, in terms of their level of education, obtained at least a grade 12 qualification. It seems to have increased from 22.6 per cent in 1996 to 28.8 per cent in 2001. This may well be the portion of the population who can be targeted for comprehensive dentistry in the future as such persons will have the required resources at their disposal to demand this. However, the current growth in the number of dentists in SA is probably too high to be accommodated by such a small growth in the educated portion of the population (45 per cent as opposed to about six per cent).

Table 8 SA: level of education amongst percentage of population aged 20 years and older (14)

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

2.3.5 Economic profile of the South African labour market

Table 9 (below) illustrates that the South African labour market can broadly be divided into three classes (categories) of 15 million each (19). The *upper class* can be described as a rich middle class (or bourgeoisie), comprising about four million Whites and 11 million Black Africans. They earn about 85 per cent of the total income of the population. The *middle clas*s of 15 million people can be described as the working class, comprising about 380 000 Whites and the remainder Black Africans. This class earns about 10 per cent 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 of the working class can be regarded as poor. The *bottom class* can be described as a typical non-working class (underclass or lumpenproleriate). This class comprises 0.4 per cent (70 000) Whites, 0.7 per cent Asians, 4.2 per cent Coloureds and 94.7 per cent Black Africans. This class of 15 million people earns about five per cent 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.

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 resources at their disposal to afford comprehensive dentistry. However, at present 22 million South Africans (or 48.5 per cent) are living below the poverty line (19).

Table 9 South Africa's highly stratified community (19)

Number of people		**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

Table 10 (below) illustrates comparative data for the 1996 and 2001 censuses of persons aged 15 to 65 years, by population group, according to their labour market status. The Black African and Coloured population groups show noticeably higher unemployment rates in 2001 than in 1996, with the rate for African Blacks and Coloureds increasing by 4.7 per cent and 3.5 per cent respectively, over the five years between 1996 and 2001.

Table 10 South African labour market (14)

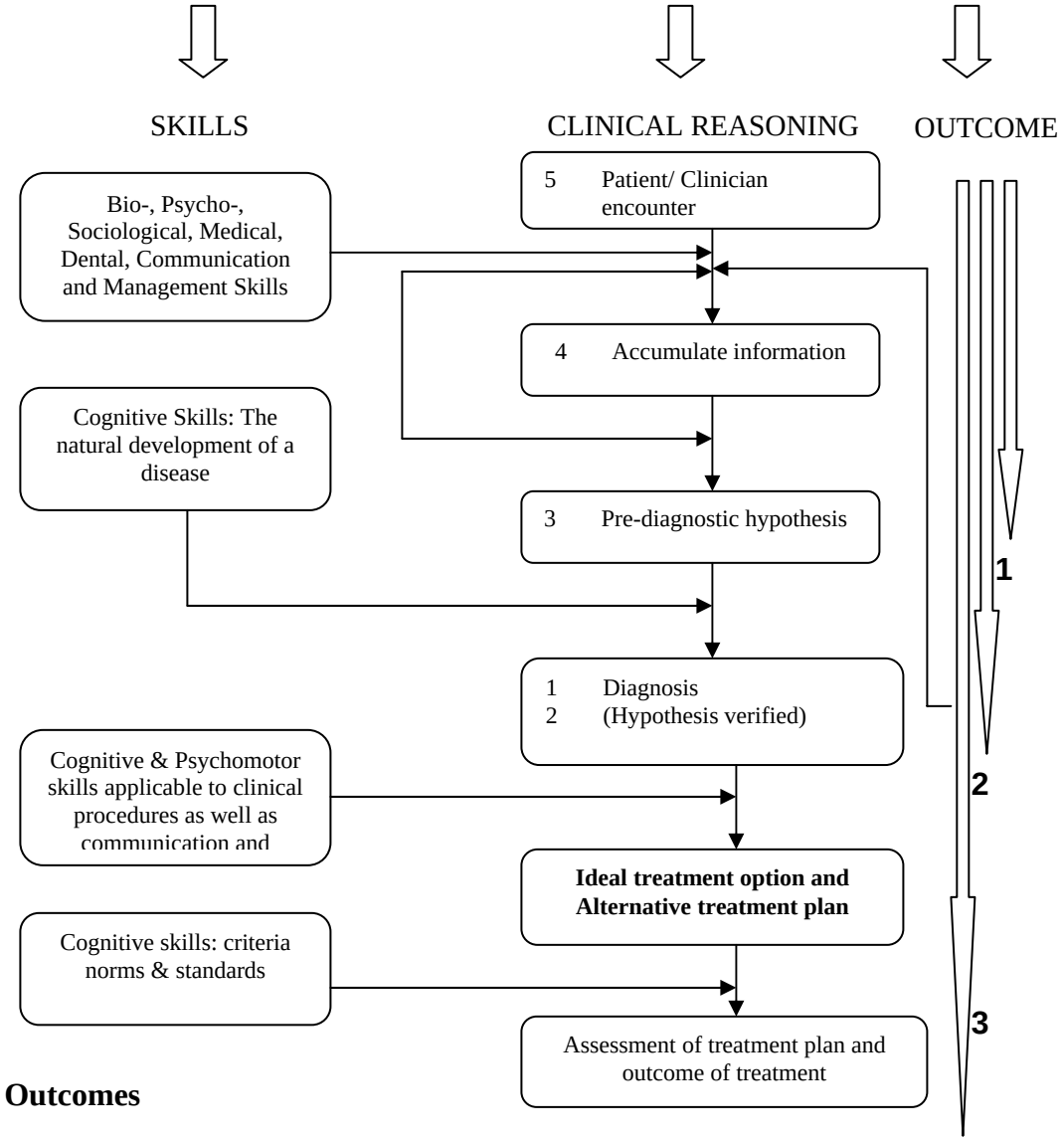
Year	**Black African**		**Asian/Indian**		**Coloured**		**White**	
	Employed	Unemployed / Not economically active	Employed	Unemployed / Not economically active	Employed	Unemployed / Not economically active	Employed	Unemployed / Not economically active
1996	**31.6**	**68.3**	**51.3**	**48.7**	**51.3**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

The rate of unemployment in SA poses a major threat to the potential demand for comprehensive dentistry. In view of the above and given the disproportionate growth in the number of dentists compared to the growth in that portion of the South African population who have the resources at their disposal to demand comprehensive dentistry, alarming lights are starting to flash.

2.4 Dental education in SA

The training that students receive in dental schools, not only during their under-graduate training, but also in post-graduate education, exacerbates the failure of a treatment plan presentation. A dental school's curriculum is intensely technique-oriented. Unfortunately students often do not receive adequate training in understanding the complex interaction that characterises the dentist-patient relationship. This occurs because of curricula time restraints and the lack of school interest (16).

The School of Dentistry, University of Pretoria, recently implemented an outcomes-based curriculum. Although the curriculum is based on a bio-psycho-social approach (Figure 4, below), the clinical training and learning emphasise the bio-aspects of the application of knowledge by means of the *clinical* reasoning process, resulting in almost no attention given to the psychosocial educational needs of the student. Although communication skills were identified as a cross-field outcome to be achieved by dental students, students did not receive any formal relational communication skills training.



Outcomes

Level 1

- Take cognizance of the disease/condition in order to come to a tentative diagnosis (recognition of an abnormality) for the purpose of consultation

Level 2

For the purpose of referral be able to:

- accurately diagnose the disease or condition, and
- assess the associated risks.

Level 3

For preventive, therapeutic curative and rehabilitative purposes be able to:

- accurately diagnose the disease or condition
- assess the associated risk (determine the probability/risk of developing the disease)
- assess and develop the ideal and alternative treatment plan, explain the treatment plan and cost with the patient and sell the best plan to the patient considering all factors; and
- implement the plan and assess the outcome of the treatment.

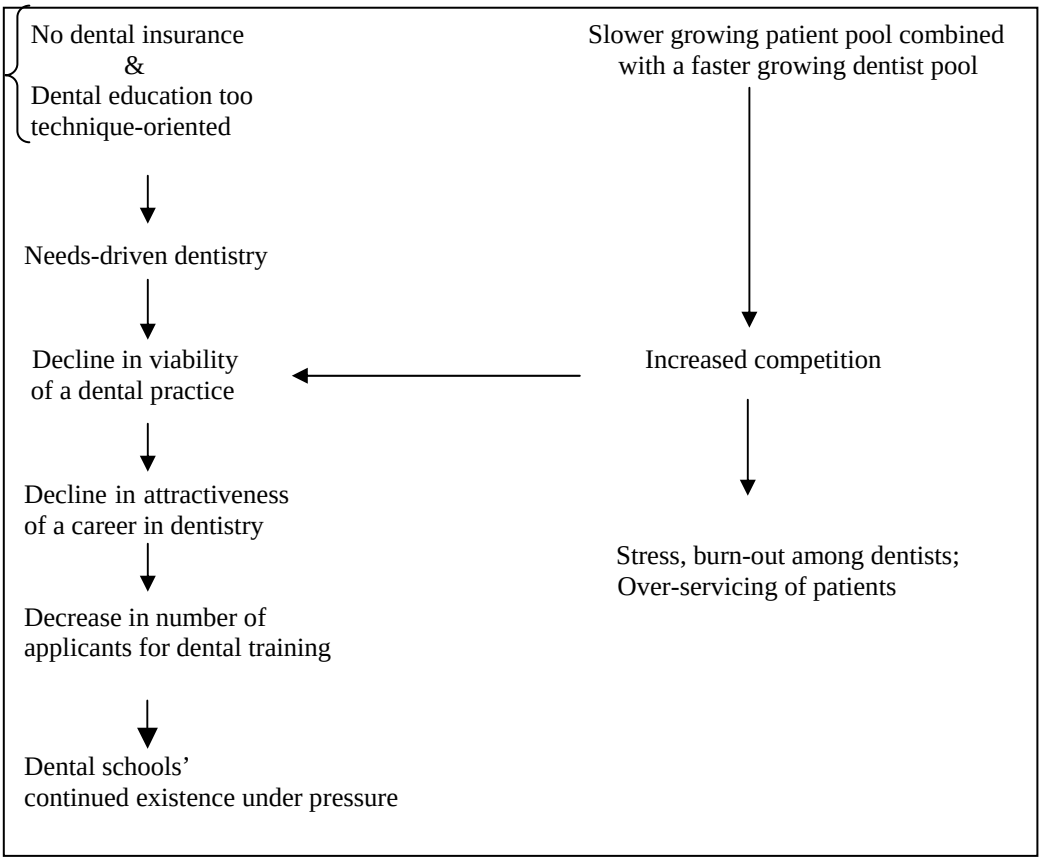
Figure 4 The Bio-, Psycho-Sociological-, Medical-, Dental-, Communication- and Managerial Skills related to the Clinical reasoning process (20)

2.5 Implications of the interacting forces

Warning lights are beginning to flash for the dental profession in SA as a lack of a demand for comprehensive dentistry among a slower growing patient pool will increase the competition among a faster growing dentist pool. A too competitive dental market may result in (Table 11):

- A decline in the viability of a dental practice;
- A decline in the attractiveness of a career in dentistry;
- An increase in stress and burn-out among dentists;
- Over-servicing of patients in order to maintain the viability of the practice;
- A decrease in the number of applicants for dental training, and
- Dental schools' continued existence would come under pressure.

Table 11 Implications of the changes in the external environment



2.6 Conclusion

This chapter has described the interacting forces that are influencing dentistry in SA and the implications of these interacting forces for the dental profession in SA. The chapter was concluded by referring to the warning lights that are beginning to flash for the dental profession in SA: a lack of a demand for comprehensive dentistry may jeopardise the viability of a dental practice and eventually dental schools' continued existence would come under pressure because of a decrease in the number of applicants for dental training caused by a decline in the attractiveness of a career in dentistry.

Chapter 3 will present the problem statement and hypothesis of the study.

CHAPTER 3 PROBLEM STATEMENT & HYPOTHESIS

3.1 Problem statement

The interaction between the dental profession, the dental market and dental education as presented in Figure 2 (Chapter 2, section 2.1), is conducive to a needs-driven culture characterised by low viability, tooth-at-a-time-dentistry (Figure 5, below). In order to convert this needs-driven culture into a high viability, demands-driven culture (characterised by the selection of comprehensive dentistry by a trusting, loyal patient) intervention in the traditional clinically- and technique-orientated undergraduate dental curriculum is necessary (Figure 5, below). Such intervention should be based on the evidence that customer satisfaction is a fundamental driver of customer loyalty in service markets (21). Furthermore, the intervention should have a patient-centered or customer relationship management (CRM) approach enhancing the dentist-patient relationship (22).

3.2 Hypothesis

The teaching and facilitation of communication skills by means of a skills-based approach will serve to enhance a patient-centered approach by dental undergraduate students and, as a result, the patient's dental experience. This will be achieved by developing students' interpersonal skills based on the most recent educational research. Furthermore, by creating a dentist with a competitive edge through the integration into the traditional clinically- and technique-orientated undergraduate dental curriculum of business principles such as customer relationship management (CRM), differentiation and competitiveness, the classical needs-driven culture will thereby be converted into a demands-driven culture (Figure 5, below).

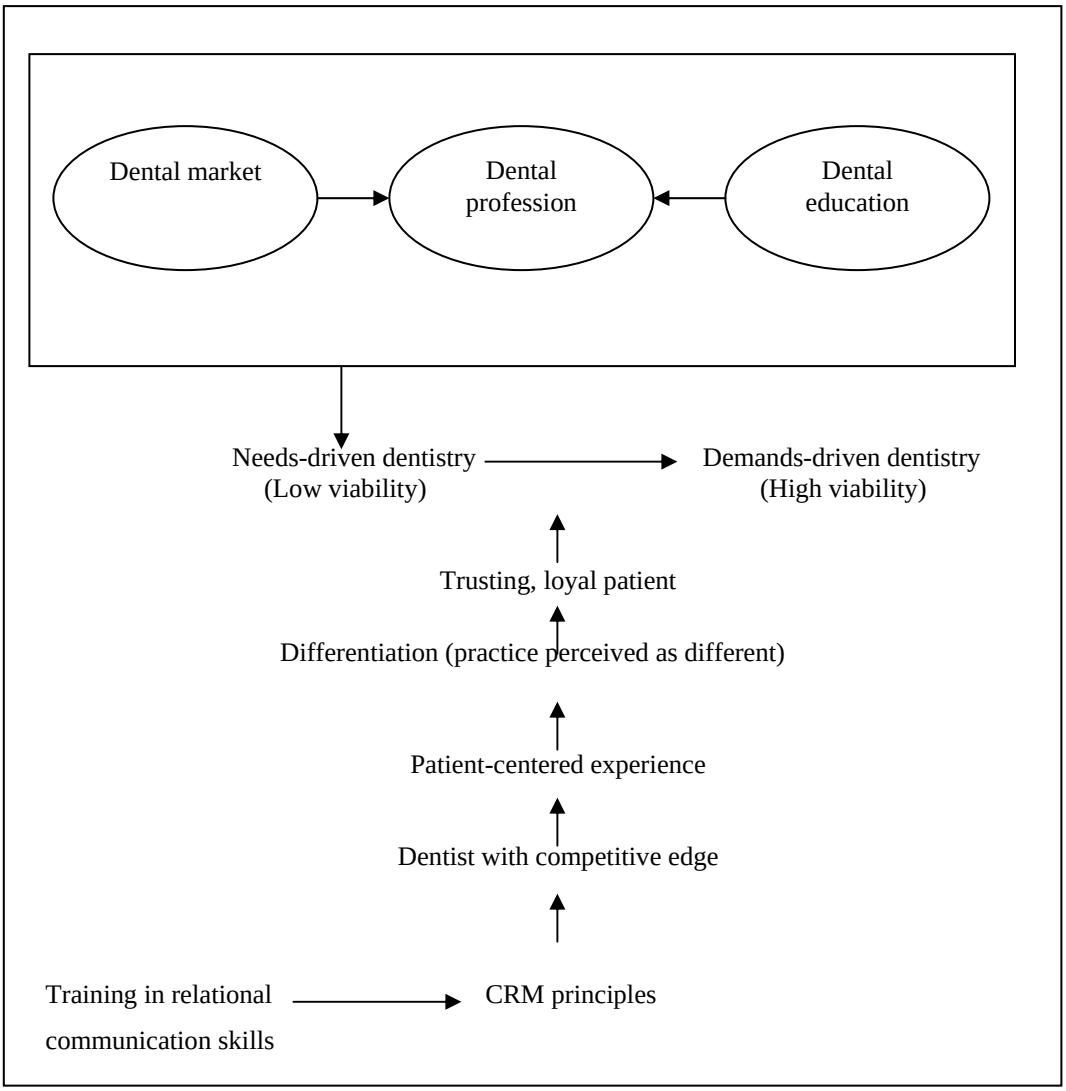


Figure 5 Proposed intervention to create a demand for comprehensive dentistry in SA

3.3 Proposed intervention

The situation with regard to dentistry in SA as presented in Chapter 2 makes it essential for dentists to enter the market equipped with skills to create a loyal patient. Entry into the competitive South African dental market without a competitive advantage (for example excellent clinical skills in combination with the ability to maintain a quality interaction with the patient) is a recipe for failure.

The dentist's ability to establish sound relationships with patients is a major determining factor for both a healthy focus on dentistry and its enjoyment. A patient's initial experience with a dentist who does not have the necessary skills to establish a good relationship with his/her patient often leads to a lack of confidence in the dental profession. Such a dentist is likely always to have problems with patient management. It is therefore desirable to inculcate the type of training which equips a dentist to be more open to, and understanding of the patient (23).

The skills required to render needs-driven, tooth-at-a-time-dentistry characteristic of a medical fund culture, are very different from those needed to present modern, comprehensive treatment plans (24). In order to maintain the viability of a dental practice as a small business while at the same time making the practice of dentistry in SA as attractive as possible, the future South African dentist should acquire the skills to provide eloquent treatment plan presentations based on his/her ability to *listen* to patients' needs and expectations as well as to find creative ways to help patients fit dentistry into their respective lifestyles and financial budgets. Furthermore, the future South African dentist needs to be proficient in performing comprehensive dentistry and should therefore acquire the clinical training aimed at promoting confidence in performing comprehensive procedures, all of which include diagnostic skills, cosmetic dentistry, orthodontics, periodontal surgery, preventive dentistry, implantology and minor oral surgical procedures.

3.4 Envisaged outcome of proposed intervention

More attention to the communication skills of healthcare providers is likely to be given in the future owing to the confluence of forces that have highlighted the importance of communication in healthcare (25). Communication and interpersonal skills have become key criteria for the accreditation of medical (and dental) schools, as well as for the certification of those practising physicians who had adopted the following resolution in 1995: "Communication skills are integral to the education and effective function of physicians.

There must be specific instruction and evaluation of these skills as they relate to physician responsibilities, including communication with patients, families, colleagues and other health professionals". This resolution suggests not simply an opportunity, but a responsibility for medical and dental schools to teach, to facilitate learning and to assess competence in communication skills (25). Current guidelines from the American Association of Dental Schools and a recent publication by the Institute of Medicine emphasises the importance of behavioural sciences, namely the interaction of patient and healthcare provider (26). By the same token, the subcommittee for Undergraduate Education and Training of the Medical and Dental Professions' Board of the Health Professions' Council of SA, in determining accreditation standards for undergraduate medical and dental education in SA, insisted that communication skills be recommended as a required curricular outcome (27).

In view of the above, this study will need to address the development of a curriculum in relational communication skills that will empower the future South African dentist to create a dentally educated and loyal patient - a patient who is prepared to accept a proposed comprehensive treatment plan and who will maintain a long-term, viable relationship with the dentist as a result of the dentist's trustworthy nature and patient-centered approach.

The objective of this study is therefore to propose an intervention in the traditional clinically- and technique-orientated dental curriculum in order to produce a more competitive dentist for the emerging SA dental market.

The quest of the School of Dentistry, University of Pretoria, to innovate, to be locally relevant and internationally competitive, can only be met if the challenge to train *scientific and humanistic* dental physicians is accepted. A curriculum in communication skills should therefore develop students' interpersonal skills that will facilitate effective and empathic relationships with patients as well as effective collaboration with other healthcare professionals.

Students will also be better equipped to deal with patient anxiety in clinical practice, to identify ethical issues and to recognise significant psychosocial factors which would lead to more accurate diagnoses and treatment processes. All of these factors are designed to increase patient satisfaction and treatment compliance (6). Furthermore, the teaching of relational communication skills to undergraduate dental students relates well to the University of Pretoria's slogan "Innovation generation." Not only should it be expected of students to have an innovative approach, but it is essential that lecturers, tutors and/or mentors as students' role models, have an innovative approach to educational research and curriculum development.

A shift in the power structure between patients and dentists has taken place. Patients are a practitioner's link with solvency, success and growth. Patients are the determining factor in the growth and eventual success of a dental practice (8). Training in relational communication skills will empower the dentist to achieve personal, professional and financial success, based on sound financial and marketing principles.

Successful dentists owe their success to the fact that their patients trust them. They have earned that trust because they value their patients and regard them as their most important assets. Such trust stems from a bonded relationship with one's patient and is achieved by listening, acknowledging, exploring and responding (8). Adoption of such a patient-centered attitude is the one essential recipe for success in healthcare today. The client, in having a patient-centered experience and perceiving the dentist as unique and different, will in turn become a loyal patient with a genuine demand for comprehensive dentistry.

Armed with the appropriate communication skills, the South African dentist will hopefully be empowered to meet the challenges in a dynamic, competitive and challenging South African dental market. The ability to enter this market with a competitive advantage (for example the ability to engage in a quality interaction with the patient) is a recipe for success.

A competitive advantage of this nature would lead to a profitable practice by ensuring:

- An increase in the number of patients who have an *appreciation* for
- dentistry;
- An increase in the number of patients displaying *loyalty* towards the
- dentist;
- An increase in the *demand* for comprehensive dental care by patients;
- An improvement in the *viability* of a dental practice.

3.5 Conclusion

Chapter 3 has outlined the problem to be researched. A solution to this problem has been proposed together with a consideration of the value of the proposed solution. The following quotation, exemplifying the problem statement and proposed intervention presented in this chapter, concludes the chapter: 'Without a healthy relationship, your patients are not really your patients; they are just temporary visitors to your practice. They will go wherever some third party payer (medical fund) tells them to go if they can save a buck! The patient is not to blame. We have trained patients to be that way. We have trained them to wait and see what the medical fund will pay' (28).

Chapter 4 will present a summary of the review of the literature that presents the most authoritative scholarship in relation to the research problem.

CHAPTER 4 SUMMARY OF THE REVIEW OF THE LITERATURE

4.1 Index

The literature review will address the following:

- Consumerism and the attitude of patients
- Customer Relationship Management
- Dimensions of buyer-seller relationships
- What is trust?
- Dimensions of trust
- Trust in the patient-physician relationship
- The patient-physician relationship
- The therapeutic relationship
- Characteristics of relationship-centered care
- The link between communication skills and health outcomes
- Communication elements as indicators of relationship-centered care
- Deficiencies in communication
- Evidence that communication skills can overcome deficiencies in doctor-patient communication
- Interpersonal communication skills teaching in United States and Canadian dental schools
- Interpersonal communication skills teaching in European dental schools
- Teaching communication skills
    - Principles of how to teach and learn communication skills
    - Teaching and learning methods
    - Strategies for maximising participation and learning
    - Dealing with tensions that influence learning
- Assessing communication and interpersonal skills
- Using standardised patients to teach and evaluate interviewing skills

- Using of video feedback to enhance communication skills training
- Potential major influences on communication
- A communication skills model
- Conclusion

4.2 Consumerism and the attitude of patients

Growing sophistication, rising levels of knowledge and growing concern about value for money are causing increasing numbers of patients to question both the value of professional services and the judgment of practitioners and, increasingly, to "shop around" for second opinions. Patients expect greater speed and efficiency from medical and dental practitioners due to the mass communication media and the accessibility of computer technology with its numerous advantages (18).

Consumerism has significant implications for the dentist of the 21st century: patients expect to be *involved* in treatment decisions and to have a *quality experience exceeding their expectations* while visiting the dental practice (8). The *changing attitude of patients* is the most important factor contributing to a decline in loyalty towards healthcare professionals. Today's patients have more options than ever before. If a practice does not offer what the patient wants or needs - if the interaction with the dentist does not *exceed* their expectations - patients may not perceive the dentist to be different and unique, and as a result, will do business with one of his/her competitors (17).

It is clear from the literature that the relationship approach is an emerging perspective in service marketing (21). In today's hyper-competitive era, long-term growth maintenance requires from businesses to find new ways of relating to customers. Therefore, instead of keeping customers at arm's length, businesses must develop strategies and tactics to develop closer relationships with their customers (29).

If businesses - and dental practices - wish to succeed in today's competitive market where customers are becoming smarter and brand loyalty erosion is increasing, it is now the time to change! It is time to take cognisance of a new term within an old concept, namely "Customer Relationship Management" (16).

4.3 Customer Relationship Management (CRM)

Marketing concepts and definitions have remained relatively unchanged until recently (30). Businesses have traditionally focused on transaction management characterised by buyer and seller exchanges with limited communications and little or no ongoing relationship between buyer and seller (29). An extremely important management issue today is to develop an understanding of how and why a sense of loyalty develops in customers (31). Research supports the evidence that customer satisfaction is a fundamental driver of customer loyalty in service markets (21). The greater the customer's satisfaction and as a result his/her loyalty towards the company, the greater the likelihood that the customer will be retained (32).

CRM focuses on the customer and the relationship a company creates and maintains with its customers (22). CRM is a shift from mass marketing to individual "one-to-one" marketing. It involves the experience a customer has each time he/she interacts with the company with the primary objective being to retain the customer. CRM requires a long-term perspective with a strategic vision to build and maintain the long-term relationship with a customer (33). In CRM, the destroyers of relationships, for example inconsistency, forgetfulness and inappropriate behaviour, are eliminated (34).

However, not all encounters result in long-term relationships. Poor initial encounters are difficult to overcome. There is no second chance to make a good first impression! Even should subsequent encounters be positive, they may only serve to confuse the customers, leaving them unsure of the relationship and vulnerable to competitor's appeals.

CRM can be applied to the dental profession. Without a healthy relationship, patients are merely temporary visitors to a dental practice. The failure of many dentists to create a *demand* for comprehensive dentistry can often be attributed to their failure to establish a relationship that elicits the patient's "story" (expectations, psycho-social issues and emotions) (28). While presenting a treatment plan, little time is spent by the dentist to establish a sound relationship with the patient. Treatment options are offered to the patient's dental disease that are not fully understood, realised or experienced by the patient. As a result, the patient does not "buy" into the treatment recommendations proposed by the dentist (28).

From the above it is clear that any relationship between patient and dentist can be described as a buyer-seller relationship. Purchases that involve greater risk for the buyer tend to increase the intensity of the relationship between buyer and seller (29). The dentist-patient relationship can be quite intense due to the average patient's perception of the risk involved in visiting the dentist!

4.4 Dimensions of buyer-seller relationships

Although making, enabling and keeping promises are extremely important elements in creating a relationship with a buyer, developing an emotional relation with the buyer is equally important. The four key dimensions for developing these emotional relations between a buyer and a seller are bonding, empathy, reciprocity and trust (29).

Bonding: A long-term relationship between buyer and seller requires a bond that joins the two. Mutual interests or dependencies must be identified and satisfied in order to cement the relationship. Customers with strong bonds to an organisation are more likely to remain committed to continuing their relationships with the organisation (29).

Empathy is the ability to see a situation from the perspective of another party. Empathy encourages customer loyalty by the reassurance that the company cares about customers' concerns (29). Understanding customer needs and motivations helps businesses to improve the effectiveness of their goods and services. Patients of health maintenance organisations (HMOs) for example, often complain of feeling dehumanised when they contact their health-care providers for help or information (29).

Reciprocity: give-and-take is a part of every relationship. One party makes allowances and grants favours to the other in exchange for the same treatment when the need arises. In business relationships, this give-and-take process weaves a web of commitment between buyer and seller, binding them ever closer together (29).

Trust is the glue that holds a relationship together. Trust is one party's confidence that it can rely on the other's integrity to deliver what it promises. When a business follows through on its commitments to customers, trust grows and allegiance is fortified (29).

4.5 What is trust?

A certain degree of trust is said to be inevitable or unavoidable in treatment relationships (35). Numerous definitions of trust have been proposed (36; 37; 38). The majority of these definitions stress the optimistic acceptance of a vulnerable situation in which the truster believes the trustee will have the former's interests at heart. Trust and vulnerability cannot be considered separately as there is no need for trust in the absence of vulnerability. Since trust arises from patients' needs for physicians, the greater the sense of vulnerability, the higher the potential for trust. Trust in a known physician is based primarily on personal experience and individual personality. The greater the risk, the greater the potential for either trust or distrust.

When interpersonal trust assumes that the motives of the trusted one are benevolent and caring, it takes on an emotional quality that extends beyond mere calculated expectations based on an objective assessment of risks. For this reason, it is perfectly possible to trust an unskilled but very caring doctor or to distrust one who is highly competent but aloof. This emotional, non-rational component of trust is especially prominent in the medical context.

Trust should not be confused with satisfaction - a similar attitude that is widely used to measure performance. In contrast to trust, which is a forward-looking evaluation of an ongoing relationship, satisfaction is an assessment of one or more past events (39). Trust and satisfaction are closely related in that trusting patients are likely to be more satisfied, and previous good encounters are likely to foster greater trust. Trust, however, is concerned with much more than assessing service delivery. Trust is an attitude directed at a physician's character and personality and toward an ongoing relationship. One study has found that trust is more reliable than satisfaction in predicting which patients will remain with their respective physicians and who will comply with treatment recommendations (40).

Patient trust is consistently found to be related to factors such as physician's communication style and interpersonal skills (40; 41; 42; 43). Surprisingly, the length of a doctor-patient relationship or the total number of visits is only weakly associated with trust (40; 42; 43; 44). This indicates that patients form their impressions relatively quickly and that trust does not depend greatly on how well patients know their doctors.

Trust in physicians correlates positively with adherence to treatment recommendations, with not changing physicians, not seeking second opinions, willingness to recommend a physician to others, fewer disputes with the physician, perceived effectiveness of care and improvement in self-reported health (40; 41; 45; 46).

4.6 Dimensions of trust

According to the literature, trust can be divided into five dimensions (Table 12, below): fidelity, competence, honesty, confidentiality and global trust (44; 47; 48; 49; 50; 51; 52; 53; 54; 55).

Fidelity is having a patient's best interests at heart and not taking advantage of his/her vulnerability. Fidelity can be expressed through the related concept of loyalty, and consists of caring, respect, advocacy and avoiding conflicts of interest.

Competence means to produce the best achievable results by avoiding mistakes. Mistakes can be cognitive, which are errors in judgement, or technical, which are errors in execution. Most patients have difficulty assessing technical competence directly, so their views of competence are heavily influenced by a physician's interpersonal competence (communication skills and bedside manners).

Honesty is telling the truth and avoiding intentional falsehoods. Dishonesty can include outright lies, half-truths or deception by silence. Dishonesty can be further classified according to who benefits from such dishonesty: (i) the physician by failing to admit mistakes; (ii) the patient (or family) by giving false hope or triggering placebo effects; or (iii) an institution by covering up the processes, criteria or constraints for making important decisions.

Confidentiality entails the protection and proper use of sensitive or private information. It does not require absolute secrecy but rather that information be revealed only as necessary for proper medical care. It appears that, although confidentiality is important, most patients appear to enter treatment relationships with an assumption of confidentiality that either does not vary much or which varies predictably with other aspects of trust.

The final dimension of trust is *global trust* intended to describe the more holistic aspect of trust. This dimension is irreducible and is also referred to as the "soul of trust."

Table 12 Dimensions of trust

Dimension	Description of dimension
Fidelity	To have a patient's best interests at heart
Competence	To produce the best achievable results by avoiding mistakes
Honesty	Telling the truth and avoiding intentional falsehoods
Confidentiality	The protection and proper use of sensitive or private information
Global trust	The more holistic aspect of trust

4.7 Trust in the patient-physician relationship

Because few patients who receive healthcare services have the medical (dental) knowledge to ratify the care they have received, they rely, as customers, on other cues and processes when they evaluate healthcare. As illustrated in Figure 6, trust and commitment are key elements for retaining customers. Trust is particularly critical for service related organisations since the product - a service - is intangible and difficult to evaluate before or after a purchase. Trust exists when one party has confidence in the reliability and integrity of the exchange partner. Commitment refers to the belief by both parties that the relationship is worth working on to ensure that it endures indefinitely. However, commitment cannot exist without trust being first established (56).

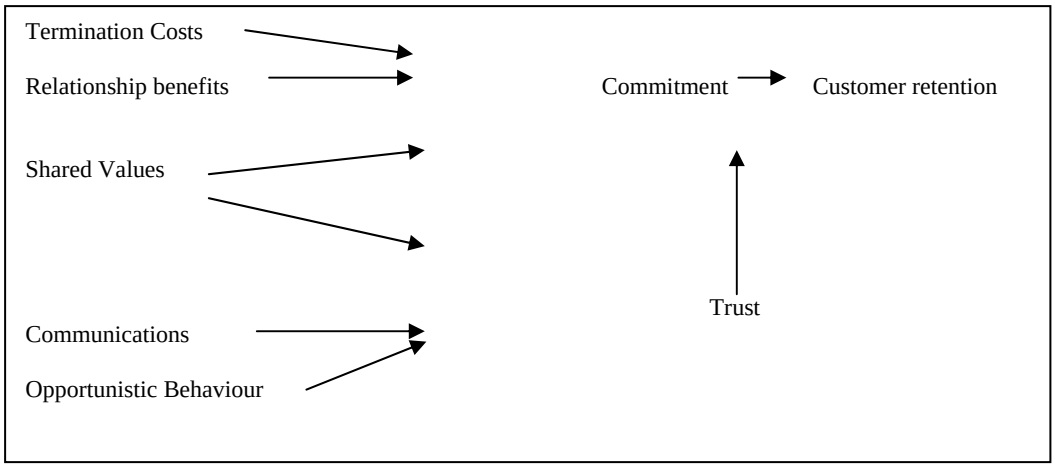


Figure 6 Trust, commitment and the retention of customers (56)

Trust has been shown to effect a host of important behaviours and attitudes, including patients' willingness to seek care, to reveal sensitive information, to submit to treatment, to participate in research, to adhere to treatment regimens, to remain with a physician, or to recommend a particular physician to others (45; 57; 58; 59; 60; 61; 62).

4.8 The patient-physician relationship

The construct of the doctor-patient relationship and its expression through the medical dialogue, has been described or alluded to in the history of medicine since the time of the Greeks (Plato) and in the modern medical and social sciences literature for the past 50 years (57; 63; 64; 65; 66; 67). Nevertheless, historians of modern medicine have tracked an undeniable decline in the centrality of communication to the care process (68).

In his study of the history of doctors and patients, Shorter (68) attributes the decline of communication to the ascendancy of the molecular- and chemistry-oriented sciences as the predominant 20th century medical paradigm. This change was fundamental in directing the physician-patient interaction away from the person of the patient to the biochemistry and patho-physiology of the patient.

Just as the molecular and chemistry oriented sciences were adopted as the 20th century medical paradigm, incorporation of the patient's perspective into medicine's definition of the patient's need has been suggested as the medical paradigm of the 21st century (69; 70; 71).

4.9 The therapeutic relationship

Power relations in medical visits are expressed through several key elements, including: (i) who sets the agenda and goals of the visit (the physician/the physician and patient in negotiation/the patient); (ii) the role of patients' values (assumed by the physician to be consistent with their own, jointly explored by the patient and physician, or unexamined); and (iii) the functional role assumed by the physician (guardian, advisor or consultant). Application of these core elements can be useful in recognising the variety of power relations expressed in models of the doctor-patient relationship (72) (Table 13, below).

Table 13 Prototypes of the doctor-patient relationship (72)

Patient power	**Physician power**	
	High physician power	*Low physician power*
High patient power	Mutuality	Consumerism
Goals and agenda	Negotiated	Patient set
Patient values	Jointly examined	Unexamined
Physician's role	Advisor	Technical consultant
Low patient power	Paternalism	Default
Goals and agenda	Physician set	Unclear
Patient values	Assumed	Unclear
Physician's role	Guardian	Unclear

Mutuality reflects the strengths and resources of each participant on a relatively even footing. As much as power in the relationship is balanced, the goals, agenda and decisions related to the visit are the result of negotiation between partners, both the patient and the physician become part of a joint venture. The medical dialogue is the vehicle through which patient values are explicitly articulated and explored. Throughout this process the physician acts as a counsellor or advisor.

The prototype of *paternalism* is most prevalent, but not necessarily most efficient or desirable. In this model of relations, physicians dominate agenda setting, goals and decision-making with regard to information and services. The medical condition is defined in biomedical terms and the patient's voice is largely absent. The physician's obligation is to act in the patient's "best interest." The determination of "best interest" however is largely based on the assumption that patient's values and preferences are the same as that of the physician. The guiding model is that of the physician as guardian, acting in the patient's best interest regardless of patient's preferences.

In the third prototype of *consumerism*, the typical power relationship between doctors and patients may be reversed. Patients set the goal and agenda of the visit and take sole responsibility for decision-making. A cooperating physician accommodates patients' demands for information and technical services. Patient's values are defined and fixed by the patient and unexamined by the physician. This type of relationship redefines the medical encounter as a marketplace transaction. Power rests in the buyer (patient) who can make the decision to buy (seek care) or not, as seen fit (73). The physician's role is limited to technical consultant with the obligation to provide information and services contingent on patient preferences (and within professional norms).

Just as the paternalistic model can be criticised for its narrow exclusion of the patient's perspective, fault can also be found with the consumerist model as too narrowly limiting the physician's role. The optimal relationship model, then, appears to be that of mutuality.

When expectations of patient and physician are at odds or when the need for change in the relationship cannot be negotiated, the relationship may come to a dysfunctional standstill - a kind of relationship default (82).

4.10 Characteristics of relationship-centered care

Relationship-centered visits are characterised as: (i) medically functional, (ii) informative, (iii) facilitative, (iv) responsive and (v) participatory (74; 75; 76; 77; 78).

The *first* of these is the extent to which the relationship fulfils the provision of basic medical tasks. Included among these tasks are structuring of the visit, efficient use of time and resources, smooth organisation and sequencing of the visit, and team-building among health professionals (78; 87). This includes technical tasks related to physical examination, diagnosis and treatment.

Secondly, the relationship must be facilitative in eliciting the patient's full spectrum of concerns and agenda for the visit. Within this context the patient's ability to tell the story of his/her illness holds the key to the establishment and integration of the patient's perspective in all subsequent care. Telling of the story is the method by which the meaning of the illness and the meaning of the disease are integrated and interpreted by both doctor and patient. Particularly critical is elicitation in the psychosocial realm of experience. A patient's experience of illness is often reflected in how it affects one's quality of life and daily functioning, one's family, social and professional functioning and relations, and one's own feelings and emotions. Awareness of how these challenges are met and coped with, is critical to the finding of common ground and establishment of authentic dialogue (83; 84; 85).

Thirdly, the visit must be responsive to the patient's emotional state and concerns. Physicians are not simply expert consultants; they are individuals to whom people go when they feel particularly vulnerable. Showing support, empathy, concern, and legitimation, as well as explicit probes regarding feelings and emotions are important elements of rapport building and key to a patient feeling known and understood (79; 83; 84; 85).

Fourthly, the relationship must be informative, providing both technical information and expertise and behavioural recommendations in a manner, which is understandable, useful and motivating. A consistent finding in studies of doctors and patients conducted over the past 25 years has been that patients want as much information as possible from their physicians. The importance of this information appears as critical to the patient's capacity to cope with the overwhelming uncertainty and anxieties of illness as its substantive contribution to directing patient actions (79).

Finally, the fifth element of the relationship is that it must be participatory. Physicians have a responsibility and obligation to help patients assume an authentic and responsible role in the medical dialogue and in decision making. The educator model is more egalitarian and collaborative than the traditional doctor-patient model, and as such is core to the building of a mutual partnership (80).

4.11 The link between communication skills and health outcomes

First developed by Byrne & Long in 1976 (63), the concept of patient-centeredness has raised particular interest over recent years. Patient-centeredness has been recommended as the preferred style of doctor-patient communication as a means to improve patient outcomes (81; 82; 83). Therefore, patient-centeredness is currently regarded as the preferred mode of doctor-patient communication. With its focus on the patient's perspective, this approach is in line with the shift towards seeing the patient as a consumer of healthcare and the patient's charter (84).

Physician-patient communication is linked to a variety of patient health outcomes, including emotional health, symptom resolution, functional status, physiologic measures (blood pressure and blood sugar level) and pain control (85). Information sharing with the patient is a powerful communication function clearly linked to health outcomes.

Stewart (78) suggested that improvements in communication require a shift in the balance of power between physician and patient. However, this shift should not be a full pendulum swing to patient autonomy. When the medical dialogue is a *shared* process, outcomes are improved. Neither physician dominance nor total abdication of power was related to positive patient outcomes; rather, engagement in a process that leads to agreement on the problem and its solution appears to be the optimum alternative (78).

4.12 Communication elements as indicators of relationship-centered care

A meta-analysis of communication studies found that the approximately 250 different elements of communication measured in the reviewed studies could be reduced to five primary and secondary categories as displayed in Table 14 (86).

Table 14 Conceptual groupings in physician communication categories (86)

Primary categories	Information giving	Question asking	Partnership-building	Rapport-building	Socio-emotional talk
Secondary categories	• Information consent o Biomedical o Psychosocial • Information manner o Aggravated o Mitigated	• Question content o Biomedical o Psychosocial o Compliance-related • Question format o Closed o Open	• Active enlistment • Lowered dominance	• Emotionally responsive talk	• Positive • Negative • Social conversations

The *first* of the communication categories is information giving. The content of the informative exchange is most often distinguished as primarily biomedical (related directly to medical symptoms or history) or psychosocial (related to the broader social, psychological or emotional context of the medical problem or symptoms).

The *second* primary category of exchange is information seeking which includes question asking across several categories (general, biomedical, psychosocial), although again, additional content categories were also evident (86). For instance, biomedical topics were sub-categorised into those relating to medical history and symptoms, therapeutic regimen and treatment, (further refined in some studies to compliance-specific related questions), and lifestyle and health promotion questions. Several different question-asking formats were also evident. Most commonly, open- and closed-questions were identified, but sometimes, leading or rhetorical questions were coded.

The *third* primary category of exchange relates to partnership building (86). Partnership building can be seen to occur when the physician actively facilitates patient participation in the medical visit and/or attempts to equalise status by assuming a less dominating stance within the relationship. The two classes of partnering behaviour can be distinguished as reflecting 'enlistment', the active facilitation of patient input and 'lowered dominance', the assuming of a less controlling or dominant role. Both appear to play very important facilitative roles.

The *fourth* category relates to rapport-building behaviours that explicitly convey emotional content, both verbally and non-verbally (86). It is distinguished from psychosocial exchange, which puts a medical problem or symptom within a broad psychosocial context, as the explicit expression of feelings and emotions. This broad category of talk includes statements of worry and concern, reassurance, empathy, legitimation and positive regard. Emotional talk is also communicated implicitly through body language, facial expressions and voice quality.

A *fifth* category relates broadly to socio-emotional behaviours of several kinds (86). Included here are positive-, negative- and social talk. Positive talk captures the general positive atmosphere created in the visit through verbal behaviours such as agreements, approvals and compliments. Positive non-verbal communication includes nods, smiles, eye contact, forward and open body lean and vocal qualities of friendliness, sincerity and interest. Negative verbal expressions of criticism or disapproval, as well as qualities of irritation, dominance and disinterest and non-verbal indicators through frowns, closed and distant body language, avoidance of eye contact, also convey emotionally charged communication. Social conversation is not as emotionally charged positive- or negative talk, but does convey friendliness and personal regard. Social conversation is defined as non-medical exchanges, largely social pleasantries and greetings, usually a linguistic bridge from the social opening or closing of the visit to the business of the visit.

Another study (87) illustrates the usefulness of the building-block approach to combining communication elements (Table 15, below). Five patterns of relationship evident in primary care visits were identified in this study: (i) narrowly biomedical, (ii) biomedical (in-transition), (iii) bio-psychosocial, (iv) psychosocial and (v) consumerist. The first two could be considered reflections of the paternalistic model described earlier; the third and fourth patterns represent variations on relationship-centered models, while the last represents consumerism. In this study, it was also found that partnership building behaviour - checking patient understanding, eliciting expectations and opinions, encouraging patients to talk, as well as providing orientation statements which help patients anticipate what will happen next in the visit, were associated with a history of fewer malpractice suits. Socio-emotional exchanges, especially positive exchanges including humour and laughter also appeared with a history of fewer malpractice suits (87).

Table 15 Patterns of relationships in primary care settings (87)

Patterns of communication	Characteristics
Bio-medical (± 32% of visits)	• Patient and physician satisfaction lowest in the bio-medical restricted models • Physician verbal dominance • Minimal psycho-social exchange • Low patient communication • Physician question asking (high level)
Bio-medical (± 32% of visits) (in-transition)	• Physician controlled • Slightly more psycho-social exchange • High physician question-asking
Bio-psycho-social (20% of visits)	• Patient and physician satisfaction highest in participatory models • Mutual and collaborative model of exchange reflecting relationship-centered visits. • Lower physician verbal dominance • Patients' health values and preferences negotiated • Autonomy, self-understanding, self-discovery
Psycho-social (8% of visits)	• Physician acted as friend/therapist • Preponderance of talk in the psycho-social domain • Equal ratio of patient and physician talk • High patient control of communication • Dialogue about social and emotional implications • Dialogue about life issues beyond bio-medical circumstances
Consumerist (8% of visits)	• Few physician's questions • High number of patient questions • Little psycho-social exploration • Physician provided bio-medical information • Physician acted as competent technical expert providing relevant factual information.

Table 16 (below) represents a summary of the link between relationship characteristics and communication elements of relationship-centered care.

Table 16 Summary of the link between buyer-seller relationships, doctor-patient relationships and communication elements of relationship-centered care

Dimensions of buyer-seller relationships	Doctor-patient relationships	Characteristics of relationship-centered care	Physician communication categories	Patterns of relationships
Bonding	Mutuality	Medically-functional	Information giving	Bio-medical
Empathy	Paternalism	Informative	Question asking	Bio-medical (in transition)
Reciprocity	Consumerism	Facilitative	Partnership building	Bio-psycho-social
Trust	Default	Responsive	Rapport building	Psycho-social
		Participatory	Socio-emotional talk	Consumerist

4.13 Deficiencies in communication

Doctors (including dentists), often fail in their key task of communicating with patients. As a result, only half of the complaints and concerns of patients are likely to be elicited (88). Too often doctors obtain little information about patients' perceptions of their problems or about the physical, emotional and social impact of the problems (89). When doctors provide information they do so in an inflexible way and tend to ignore what individual patients wish to know and less than half of psychological morbidity in patients is recognised (74). They pay too little attention in ascertaining how well patients have understood what they have been told for often patients do not adhere to the treatment and advice that the doctor offers, and levels of patient satisfaction are variable (90).

Until fairly recently, little attention was paid in either the undergraduate- or postgraduate curriculum in ensuring that doctors (dentists) acquire the necessary skills to communicate well with patients. Doctors have therefore been reluctant to depart from a strictly medical (bio) model, to deal with psycho-social issues and to adopt a more negotiating and partnership style (74; 90). They have been unwilling to enquire about the social and emotional impact of patients' problems on the patient and family as this might unleash distress, take up too much time or threaten their own emotional status. Consequently, doctors tend to respond to emotional cues with strategies that block further disclosure (74).

Kurtz, Silverman and Draper (74) describe in detail the research evidence, which demonstrates that there are substantial deficiencies in communication between doctors and patients (Table 17, below):

Table 17 Categories of deficiencies in communication

Discovering reasons for patient's attendance	Gathering information	Explanation and planning	Patient adherence	Medico-legal issues	Lack of empathy and understanding

- Discovering reasons for patient's attendance
  - 54% of patients' complaints and 45% of their concerns are not elicited.
  - In 50% of visits, the patient and the doctor do not agree on the nature of the main presenting problem.
  - Doctors frequently interrupt patients so soon after they begin their opening statement that patients fail to disclose significant concerns.
- Gathering information
  - Doctors often pursue a "doctor-centered", closed approach to information gathering that discourages patients from telling their story or voicing their concerns.

- Both a “high control style” and premature focus on medical problems can lead to an over narrow approach to hypothesis generation and to inaccurate consultations.

- Explanation and planning
  - In general, physicians impart sparse information to their patients, with the result that most patients wish their doctors to provide more information than they do.
  - Doctors overestimate by as much as 900% the time they devote to explanation and planning in the consultation.
  - Patients and doctors disagree over the relative importance of imparting different types of medical information: patients place the highest value on information about prognosis, diagnosis and causation of their condition while doctors overestimate their patients’ desires for information concerning treatment and drug therapy.
  - Doctors consistently use jargon that patients do not understand.
- Patient adherence
  - Patients do not comply or adhere to the plans that doctors make: on average, 50% do not take their medicine at all or take it incorrectly.
- Medico-legal issues
  - Breakdown in communication between patients and physicians is a critical factor leading to malpractice litigation.
- Lack of empathy and understanding
  - Numerous reports of patient dissatisfaction with the doctor-patient relationship appear in the media. Many articles comment on doctors’ lack of understanding of the patient as a person with individual concerns and wishes.
  - In medical education significant problems exist in the development of relationship-building skills; it is not correct to assume that doctors either have the ability to communicate empathically with their patients or that they will acquire this ability during their medical training.

4.14 Evidence that communication skills can overcome deficiencies in doctor-patient communication

Many studies over the past 25 years have demonstrated that communication skills can make a difference in all of the following objective measurements of health care (91) (Table 18, below):

Table 18 Deficiencies in doctor-patient communication that can be overcome by communication skills

Process of the interview	Patient satisfaction	Patient recall and understanding	Adherence to treatment plans

- Process of the interview
  - The longer the doctor waits before interrupting at the beginning of the interview, the more likely he/she is to discover the full spread of issues that the patient wishes to discuss and the less likely will it be that new complaints arise at the end of the interview.
  - The use of open rather than closed questions and the technique of attentive listening leads to disclosure of patients' significant concerns.
- Patient satisfaction
  - Greater "patient centeredness" in the interview leads to greater patient satisfaction.
  - Discovering and acknowledging patients' expectations improves patient satisfaction.
  - Physician non-verbal communication (eye contact, posture, nods, appropriate distance, communication of emotion through face and voice) is positively related to patient satisfaction.
  - Patient satisfaction is directly related to the amount of information that they perceive has been given by their doctors.
- Patient recall and understanding
  - Asking patients to repeat in their own words what they understand by the information they have just been given, increases their retention of that information by 30%.

- Adherence
  - Patients who are viewed as partners, informed of treatment rationales and helped in understanding their disease are more likely to comply with the proposed treatment plan.
  - Discovering patients' expectations leads to greater patient adherence to treatment plans made.

4.15 Interpersonal communication skills teaching in United States and Canadian dental schools

When American patients were asked what they liked most about their own dentist, communication skills, "interpersonal caring" and professionalism appeared to be the first three qualities mentioned (92). However, research (93) showed that in many North American dental schools:

- Instruction in interpersonal communication skills appears to be inadequate;
- It is not well integrated into the four-year curriculum;
- It does not include any theoretical background or foundation;
- It is taught mostly using passive learning techniques and does not include adequate student evaluation;
- Only one-third of schools had courses specifically focusing on interpersonal communication;
- More than half of the schools offered these types of courses only during the first two years;
- The most common topics were communication skills, patient interviewing and patient education/consultation;
- The most frequently used method of teaching was lectures; active practice was used less often;
- Written evaluation was the primary instructional tool; whereas more sophisticated performance-oriented assessments were used less often;
- About half of the teachers did not have a degree in dentistry (D.D.S.) – the non-dentists were primarily psychologists;

- At least eight of the 40 schools surveyed do not appear to meet the accreditation guidelines for pre-doctoral programmes in this area of instruction;
- Schools offering more extensive instruction were more likely to offer active rather than passive teaching and use more sophisticated student evaluation strategies, and
- Research suggests a need for re-evaluation of teaching in this subject area.

4.16 Interpersonal communication skills teaching in European dental schools

Thirteen of the fourteen dental schools in the United Kingdom offer formal behavioural sciences programmes in the undergraduate curriculum, while all fourteen schools cover the topic of communication skills to some extent (6; 94). However, the course content, the teaching methods employed as well as the credentials of the teaching staff varied considerably. Many programs emphasised theoretical aspects of communication rather than providing opportunities for skills-based practice. Teaching methods generally entailed the use of a didactic teaching style and a large group format. Teaching staff were usually selected from one discipline only (for example dentists) with little interdisciplinary teaching by dentists, psychologists and sociologists (6). The lack of time and resources allocated to communication skills training and the failure of many programs to adopt a skills training approach, is a matter for concern (94).

In a recent national survey by the Dutch Consumers Association, patients reported that communication skills are one of the most important features upon which they judge their dentist (92). A Finnish survey also found that patients considered communication skills and information supply as the main characteristics of the ideal dentist (92).

Teaching communication skills has become an accepted part of the dental curriculum in the Netherlands (92). Courses in communication skills training have been offered as part of the required curriculum at the Academic Centre for Dentistry Amsterdam (ACTA) since 1972. Recent curriculum guidelines are very clear about the necessity of communication skills training for dentists. However, many European countries still lack structural training in this field (92).

4.17 Teaching communication skills

Communication is an essential skill that dentists need in practice. Teaching will be more effective if it contains practical experience and feedback. Feedback should be direct and constructive in a supporting environment. Effective feedback takes place in a one-to-one or small-group setting (95).

It is recommended in the literature that learners be given examples of the core skills of communication, some background reading and models and thereafter an opportunity to carry out these skills with constructive feedback. Experiential learning and feedback are the most effective ways to improve communication skills (95).

A collaborative approach to teaching communication skills is advocated where learner-directed and facilitator-directed learning complement each other. (74) (Figure 7, below):

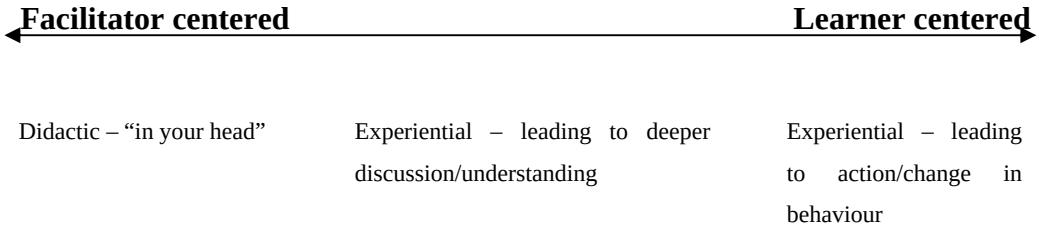


Figure 7 Continuum of the collaborative approach in teaching communication skills (74)

The didactic component of the recommended collaborative teaching approach includes lectures, group presentations and reading. It is essential to bear in mind that, although didactic methods per se do not generate skills, intellectual understanding enhances and guide the use of skills and aid the exploration of attitudes and issues by learners. Furthermore, although didactic methods may be stimulating and enable learners to understand what it takes to communicate effectively, they do not lead to changes in behaviour or to the development of skills or mastery and application in practice (74). This explains why a didactic component should be complemented by an experiential teaching approach.

Adult learners are motivated to learn when they perceive learning to be relevant to their current situation and when it enables them to acquire skills and knowledge, which they can use in immediate and practical ways. The more relevant the learning is to the real world of their immediate experience, the more quickly and effectively adults learn. Using a problem-based approach in practice requires the following strategies (74):

- Discovering learners' perceived needs;
- Creating a supportive climate;
- Developing appropriate experiential material, and
- Taking a problem-based approach to analysing the consultation.

Current educational research indicates that students may learn much more effectively when they are allowed to guide their own educational efforts (76). This has also been called the "discovery" method or "problem-oriented" approach to education. Since no instructional program in interviewing can hope to attain all the objectives, instructors are encouraged to invite their students to help in determining the appropriate focus and emphasis in each instructional session as well as the teaching methods utilised.

In learning a new skill, learners typically go through four stages as they develop from novices into mature professionals (78) (Table 19, below). The respective roles of the teacher and learner change as the student becomes more skilled. In the *stages of initial awareness* and *awkward use*, the teacher is the expert; the task is to define objectives, demonstrate the skill, guide the student, provide feedback and evaluate the student's performance. The student's task is to follow instructions.

In the *stage of conscious application*, the teacher is a facilitator who suggests alternatives, negotiates objectives and shares evaluation with the learner. The student's task is to select appropriate alternatives and to share in the evaluation. In the *stage of natural integration*, the teacher is a consultant who provides feedback. The student's task is to define his or her own objectives and evaluate his/her own performance.

Table 19 Four developmental stages from a novice to a mature professional (78)

Stage	Description of stage
Stage 1	Initial awareness
Stage 2	Awkward use
Stage 3	Conscious application
Stage 4	Natural integration

4.17.1 Principles of how to teach and learn communication skills

The appropriate approach to communication skills teaching has resulted in much debate. It is clear from the literature that two viewpoints dominate the discussion, with proponents divided into separate “attitudes” and “skills” camps (74).

The skills approach helps learners to acquire the numerous skills that research and experience have shown to aid physician-patient communication and to incorporate them into their own style of communicating. According to the skills approach, practising the skills is an essential prerequisite to improve physician-patient communication. As a result, learners need the opportunity to practise (functionalise) the appropriate skills so that it becomes part of their repertoire and can be used appropriately and intentionally whenever the situation dictates (74).

Proponents of the attitude argument suggest that doctors may well possess appropriate skills and may be using them already in circumstances outside of medicine. However, they are not transferring the use of these skills to the consulting room because of important blocks in their relationship with patients that need to be overcome before any progress can be made. The fundamental question relates to the doctor’s beliefs about the roles of patient and doctor in the therapeutic process. The doctor with a disease-orientated, doctor-centered attitude does not appreciate the patient’s views as being important and emotional issues are avoided. According to the attitude approach, the block to communication does not lie primarily with poor skills, but at a deeper level of attitude and emotions. Only when restrictive attitudinal blocks have been confronted and changed will the doctor be able to relate appropriately and effectively to his/her patients (74).

The skills and attitude approaches are linked together by the concept of outcome. In skills based teaching learners are encouraged to first identify the outcomes required for effective communication. Only then can they choose the skills that will enable them to achieve the outcome. As opposed to the skills approach, the attitude approach encourages learners to explore the outcomes they are aiming for by examining the very roots of their relationships with patients and what it is that they and the patients are trying to achieve during the consultation (74).

Arguments in favour of the skills approach include importance to ensure that learners are able to convert their newfound intentions into appropriate behaviour and that the acquisition of skills can open the path to changes in attitude (74).

4.17.2 Teaching and learning methods

Research evidence shows that certain methods are necessary for communication teaching (Table 20, below). A great deal depends on the level of interest, experience and motivation of the learner, and the resources and organisation of the teaching program (74; 76).

Table 20 Methods used in communication training

Role-play
Readings
Lectures
Demonstration
Practice
Observation and feedback
Repetitive practice
Modified live patient interviews
Small groups

A short description of the abovementioned methods follows.

Role-play (74)

Role-play is a valuable and versatile method that can be used to ensure success in communication skills teaching. A specific form of role-play is where one learner becomes the patient for an entire interview while a second learner (who does not know the case) plays the dentist. It allows instructors to focus on particular aspects of interviewing for the benefit of demonstration, practice or feedback (76).

Readings (76)

Assigned reading, sometimes followed by class or group discussion, can be an invaluable source of knowledge about interviewing. Reading can provide a conceptual framework around which skills can be practiced and developed. However, interviewing proficiency is a skill that can be aided by knowledge, but high degrees of knowledge do not guarantee any particular level of skill.

Lectures (76)

The strengths and weaknesses of lectures are very similar to those of reading material. Knowledge can be transmitted through lectures and attitudes can be influenced, but lectures do very little toward the development of psychomotor skills.

Demonstration (76)

Demonstration plays a uniquely powerful role in influencing learner skills. Learners can watch videotapes of effective interviewing or observe live demonstrations by an instructor with real patients. Interviewing skills can also be effectively demonstrated by using role-play or standardised patient techniques. It provides an invaluable first step to learning. It is much easier for students to imitate what they actually see than to produce de novo what they are instructed to do through readings or lectures. Imitation should not, however, be taken too literally.

While direct imitation may be appropriate for learning some basic skills, it is also important for learners to feel free to adapt what they have seen to suit their own particular style. This freedom is particularly important for learning higher-order skills. Complex and higher-order skills are much more subtle and cannot be easily imitated. As a result, they depend more on the individual characteristics and style of the particular doctor (dentist).

The most important part of effective demonstration is to observe a model in discrete, digestible chunks. A demonstration must be short enough - not more than three to four minutes - for learners to be able to remember what they saw, and it also must be able to be analysed in categories of behaviour that are understandable and digestible.

Practice (76)

There is no substitute for practice. Interviewing can be practiced in role-play, with simulated patients, or with real patients. Through practice it is, however, possible to develop bad habits that interfere with communication skills. In order for practice to be optimally useful to learners, practice needs to be coupled with observation and feedback.

Observation and feedback (76)

Feedback should be obtained immediately after the designated behaviour. Feedback can be obtained from teachers, videotapes or real patients. Feedback is much more useful if it is concrete and specific. The potential for learning is inversely related to the time between actual performance and feedback. When obtaining feedback, learners should receive both positive and negative, but constructive, feedback. It is usually better to obtain positive feedback first. Often, learners and teachers are too quick to focus only on negative behaviours. In order to help develop skills in self-observation, it is often particularly useful for learners to give their own positive and negative feedback to themselves first and then seek feedback from other observers.

Stewart *et al.*, (78) suggested that feedback should have the following characteristics:

- Is descriptive, rather than evaluative - for example, “I noticed that you avoided eye contact with the patient” versus “You are rather weak in interviewing skills.”
- Is specific, rather than general - for example, “You picked up well on the patient’s toothache but seemed uncertain how to explore the patient’s expectations about treatment” versus “Your clinical skills need some improvement.”
- Focuses on behaviour, rather than on personality - for example, “Your infrequent use of silence and open-ended questions reduces the chances of the patient telling what’s on his/her mind” versus “You don’t show sufficient interest in your patients.”
- Involves sharing information, rather than giving advice. This encourages learners to decide for themselves how to handle the problem.
- Limits the amount of information to how much learners can use, rather than overloading them.
- Is verified or checked with learners - for example, “How do you feel the interview went?” versus “You were terrific!” Positive feedback may be confusing or unhelpful if students thought they really did a poor job.
- Pays attention to the consequences of feedback. The verbal and non-verbal responses of students are noted. Students are asked to comment on the feedback.
- Avoids collusion: It is not always essential to provide brutally frank feedback; this may be harmful. However, it is vital not to provide meaningless and misleading or dishonest feedback - for example, “That was okay,” when it was really poorly done.

Repetitive practice (76)

Once a learner has obtained feedback on his/her performance, it is essential that this feedback be utilised in repeated efforts. Often feedback is given in learning situations without learners having the opportunity to practice the skill again and to attain a more successful outcome. This is unfortunate because a major opportunity for significant learning is missed if feedback is obtained without the opportunity for repetitive practice. Repeated practice under the observation of an instructor also allows the opportunity for the learner to test whether he or she actually mastered the problem at hand.

Modified live patient interviews (76)

There is no substitute for practising on real patients to learn good interviewing skills. Every patient is indeed different, and the complexities of interviewing cannot be demonstrated by using only simulated patients or role-play scenarios. Practise with live patients lends richness and credibility to training that cannot be duplicated by other techniques.

Live patient interviewing can at times be modified in certain educationally useful ways that add to these powerful effects. When the learner is observed in his/her interviews with real patients, the learner can get the opportunity to benefit from immediate feedback on a variety of communication techniques. After an interview is completed, patients themselves can be asked to provide their own feedback on the learner's performance. Patients can be asked to tell the learners what techniques seemed to work well and what parts did not work as well. Obtaining honest feedback from real patients can be difficult, but it is possible if the learner convinces the patient that he/she is sincere in the effort to obtain both positive and negative feedback.

Small groups (76)

Interviewing is best learned in small groups of four to six learners. A small student-to-teacher ratio allows the instructor to observe each learner and to develop a critical understanding of individualised strengths and weaknesses. This effort is certainly faculty intensive, but no way has been found around this problem to date. Standardised patients (SPs) have been utilised to give individualised feedback, but their usefulness is limited to those particular cases on which they have been trained. When SPs are allowed to give more generalised feedback, there is a danger that they may overstep the situations for which they have been trained. Effective learning, then, requires at least some close supervision by medical (dental) academic staff.

4.17.3 Strategies for maximising participation and learning

Optimal learning and skill development occur in a supportive climate of trust and openness as opposed to a defensive climate of mistrust and defensiveness (74). Table 21 (below) illustrates the six categories of behaviour that are characteristic of a supportive climate and defensive climate.

Table 21 Categories of learning climates (adapted from 74)

Supportive climate	Defensive climate
Description Non-judgemental presentation of perceptions; Avoiding terms like "good" or "bad"	*Evaluation* Passing judgement; blaming, criticising or praising; questioning motives or standards
Problem orientation Collaboration; mutually defining and solving problems rather than telling someone what to do	*Control* Telling other people what to do or how to feel or think
Spontaneity No "hidden agendas"; straightforwardness	*Strategy* Manipulating through the use of tricks or hidden agendas; hiding intentions
Empathy Willingness to become involved with others; identifying with, respecting, accepting, understanding others	*Neutrality* Indifference, aloofness; viewing the other person as an object of study
Equality Willingness to participate with the other person, to mutually define and solve problems	*Superiority* Failure to recognise the worth of the other person, arousing feelings of inadequacy; communicating that one is better than the other
Provisionalism (tentativeness) Willingness to explore alternative points of view or plans of action	*Certainty (dogmatism)* Resisting consideration of alternatives; emphasis on proving a point rather than solving the problem

4.17.4 Dealing with tensions that influence learning

Because communication is closely bound to self-concept and esteem, emotions ranging from mild frustration to outright anger are likely to accompany the issues of self-confidence, defensiveness and conflict among learners from time to time. The emotions that arise may be unrelated to communication issues and simply surface in the supportive environment that has been established.

Various strategies exist for working with the tensions and emotions that emerge (74):

- Distinguish between types of tension
  - Intrapersonal
  - Interpersonal
- Working on improving low confidence or low self-esteem
- Handling mistakes, failure and risk-taking fears
- Handling disagreements
- Dealing with anger.

4.18 Assessing communication- and interpersonal skills

The growing interest in the field of patient-doctor communication has resulted in a proliferation of communication assessment instruments. Several recent articles reviewing the literature pointed out several difficulties in reviewing this topic: the large number of different assessment tools; the great variety of variables and concepts being assessed; the large number of outcome variables; the different definitions of good communication and the differing purposes for the studies (96). A comprehensive review and comparison of instruments used to assess patient-doctor interaction over the period 1986 - 1996, has revealed a large number and a wide variety of instruments which depend on various data collection techniques (96). Few are widely used and many have never been demonstrated to be reliable or valid, making it difficult to compare the findings of different studies (96).

Attempts to assess communication skills have proven challenging on a number of fronts (97). Some of the problems include a variation in the skills to be assessed and the way in which learning demonstrates those skills. A number of studies using a variety of assessment techniques demonstrate inadequate inter-rater agreement and poor generalisability, particularly when using academic staff to assess learners' communication skills (97).

Various tools exist for assessing communication and interpersonal skills: (i) SPs using sophisticated behavioural checklists such as the Calgary-Cambridge and SEGUE scales to observe behaviour in interactions; (ii) surveys of patients' experience in interactions; (iii) examinations using oral, essay or multiple choice response questions (98); (iv) tools that take advantage of advanced computer and audio-visual technologies, like the Roter Interaction Analysis System (RIAS) and videotape feedback; and (v) OSCEs (26).

The checklist remains the most frequently used assessment tool for assessing communication behaviours. Over 25 communication and interpersonal skills rating checklists are described in the literature, but only a few have been widely used (98). Currently there is no gold standard, and standardisation of instruments across clinical settings remains an important future challenge.

Although these assessment tools consider both communication and interpersonal skills, none of the tools persuasively answers the main question: *Did the physician satisfy the essential reason for which the patient sought help?* Each assessment tool focuses on physician behaviours that have been considered to be critical to a successful transaction with the patient. Although they measure observable behaviours, they do not measure their effect on the patient. A property of the medical encounter that is becoming increasingly topical and relevant is the property of *meaning*. *Meaning* is a property of neither the patient nor the physician, but of both. Just as only the patient can define the meaning of illness, only its participants can define the meaning of the clinical encounter. Although the clinical encounter may have meaning for both the doctor and the patient, the *quality* of the interaction is determined by *meaning as defined by the patient* (99).

In 2002 communication experts convened in Kalamazoo, Michigan, to assess what is known about the ability to evaluate physician communication skills. The participants agreed that while theory and research regarding medical communication has become stronger, a physician could perform well on checklists that assess communication skills but still fail to address a patient's central need, and vice versa (99). The Kalamazoo II report suggested the following (98):

- The same assessment tool may be used for formative evaluation and feedback during training or for summative and high-stakes evaluations for promotion, certification, etc.;
- Demonstration of interactive skills demands observation and ratings of real or simulated physician-patient encounters. The raters may be actual patients, trained simulated patients or other professionals who complete checklists or answer questions in a survey;
- Selection of the tools chosen by an educational program will depend on the resources available and validity required. At a minimum, competence in communication- and interpersonal skills should be taught and evaluated by trained faculty coaches and evaluators using standardised checklists;
- The therapeutic essence of the doctor-patient relationship should include the patient's perspective obtained either from ratings or surveys after encounters.

4.19 Using standardised patients to teach and evaluate interviewing skills

Dental educators tend to focus on psychomotor skills and valuing technical performance over critical thinking skills (100) and are therefore currently being challenged to introduce new and better teaching methods (26).

Since 1964, medical education has utilised standardised patients (SPs) – lay people trained to simulate a patient's illness in a standardised way to portray standardised scenarios for students to practice gathering for relevant history and symptoms, diagnosis and treatment planning in actual patient situations (26).

SP-based teaching and assessment present students with the same problems and decisions they would face with real patients, and then assess critical thinking by evaluating steps in the process of a student-patient interaction. SP-based instruction and assessment incorporate relevant aspects of clinical and behavioural sciences in a realistic setting (100). SPs are trained to "portray a patient that does not vary from student to student (101).

Numerous reports from medical educators indicate that the use of SPs as instructors can be a very effective and efficient method for teaching physical examination, clinical sciences and behavioural sciences in realistic settings (26). SPs can accurately and consistently portray patients and can assess students' performance. Students have difficulty distinguishing between real and simulated patients.

Although standardised patient instructors (SPIs) are used as part of the instructional program in nearly 95 per cent of medical schools, their use in dental education programmes have been more limited (100; 101; 102; 103; 104; 105; 106). However, two studies about teaching communication skills to undergraduate dental students using SPs, reported that students enjoyed and valued the training (6; 107).

Patient satisfaction, in this new era of relationship-based care, is a function of the patient's involvement in treatment planning and goal setting. Therefore, it becomes important that dental schools familiarise students with patient issues and teach them how to talk effectively to patients about their expectations and emotions and to incorporate these into a discussion of the treatment plan for the patient. SPs can be used effectively toward this end (101; 105). Advantages associated with the use of SPs are clear:

- Cases are predetermined thereby guaranteeing specific experiences;
- Students gain practice on sensitive issues without risk to a real patient;
- Students gain confidence and expertise, making the transition to the clinical setting easier, and
- SPs are available on demand, making time management more flexible.

In another study, 90 - 96 per cent of medical students rated the SP-instructor's feedback as valuable. The students also reported that the skills acquired were likely to be used, and they had learned "much" or "very much" (108).

At the University of Illinois, College of Dentistry, two SP instructor programs were developed: one to teach freshman communication and examination skills, and the second to teach aspects of geriatric dentistry (103). Academic staff and SP student evaluations were compared. The results showed high agreement in evaluating student behaviours, thus supporting the conclusion that SP instructors can accurately evaluate student performance (103).

In a study by Fitzgerald *et al*., (104) students' perceptions of the value of a newly created SPI interaction in preparation for their third year clinical experience, were assessed. It was strongly perceived by students as valuable and improved their clinical communication skills. A study by Van der Molen *et al*., (106) developed and evaluated a communication skills training programme for the management of dental anxiety. The results showed that the communication skills training had an effect on the knowledge and a substantial effect on the behaviour of the students. Results from the learner report showed that the students acquired important insights into their own capacities and limitations and it was recommended that knowledge and behaviour examinations should be introduced as a regular part of the curricula for undergraduate students in dentistry.

However, the use of SPs in teaching communication skills, have limitations (109). SP programs are most useful for the evaluation of adult clinical problems, but less useful for assessment of paediatric clinical skills. Ethical and reliability issues limit the use of children in SP scenarios (109). A virtualised standardised patient (VSP) system was described in the literature, which could serve as an adjunct to live actors for teaching and evaluating patient interviewing skills (110).

4.20 Use of video feedback to enhance communication skills training

Substantial evidence exists that communication skills can be taught and that the physician's interviewing performance can be improved. Also, there is compelling evidence that experiential methods of communication skills instruction are superior to more traditional didactic approaches (111). In particular, studies of video review and feedback of student performance in interviews have consistently produced positive gains in communication skills. Despite the evidence of success as an effective educational strategy, only a minority of communication training programmes provide systematic feedback to trainees on videotaped performance with real patients or simulated patients (111). Although a number of communication assessment tools are available, few studies have directly linked skills assessment to video feedback.

Videotaping is used to enhance skill development, to heighten student self-awareness and to evaluate student mastery of required curriculum content. Academics from disciplines including medicine, nursing and speech and language therapy reported using videotaping as an educational methodology (112). The reported effects of using videotaping include increasing the level of student involvement in learning; increasing academic staff effectiveness in evaluation; avoiding detrimental patient consequences with novice nurses; decreasing the amount of lecturers' time required for evaluation; increasing students' self-awareness and enhancing student learning outcomes (112). However, in a study to teach students health promotion interviewing skills, videotaping was rated as the least valuable aspect of the program (108). (It is not clear whether it was "to be videotaped" or whether it was the "feedback by means of videotape" that was rated negatively by the students).

An innovative video feedback method, involving an established analytical framework used through an interactive CD-ROM platform, is reported in the literature (111). The authors assessed acceptability both to students (in this case paediatric residents) and faculty members, as well as evaluating a brief teaching intervention (one hour of video feedback linked with a one hour didactic and role play session). The method was found to be acceptable to all parties, and the intervention was associated with a range of changes in communication, mostly in a positive direction. Residents generally felt their skills had improved as a result of the feedback, and faculty members preferred the method to more traditional approaches to feedback.

Dental schools today are faced with the concurrent problems of dwindling financial resources and a student population experiencing difficulty with the academic demands of dental school. SP-based instruction has the potential to be a very effective and financially efficient teaching tool. As students assess themselves through watching videotapes of their own and expert performances and gain mastery of skills in less time, lecturers' time needed for teaching and remediation could be reduced. (100).

4.21 Potential major influences on communication

Female residents demonstrated greater changes in communication skills than males, in line with the results of work by other researchers (111; 113).

Ethnicity is another potential major influence on communication. Students born in non-Western countries placed a greater degree of importance on communication skills than students born in Western countries (113).

Personality differences between doctors and patients in relation to communication were also investigated by employing the Myers-Briggs Type Indicator (114). Significant differences were found in most of the dimensions of personality measures, including those said to be pertinent to communication.

The authors suggest that this might account for some of the well-recognised failures of communication between doctors and patients. The author's suggestion that doctors (and presumably students) might benefit from education and training in the concept of personality type differences, and their pointers as to how to "flex" their own style to take account of such differences so as to improve communication, have merit. They also remind us that communication skills teaching should not be divorced from other areas of personal and professional development, particularly in the area of teaching about diversity, and that fostering self-awareness is an important component of medical education (114).

4.22 A communication skills model

In May 1999, a total of 21 leaders from major medical education and professional organisations and representatives of five currently used models of doctor-patient communication (Table 22, below) attended an invitational conference. The participants focused on delineating a coherent set of essential elements in physician-patient communication to facilitate the development, implementation and evaluation of communication-oriented curricula in medical education (91).

Table 22 Five currently used models of doctor-patient communication

Bayer Institute for Healthcare Communication E4 Model (115)	Three Function Model/Brown Interview Checklist (116)	The Calgary-Cambridge Observation Guide (74)	Patient-centered clinical method (117)	SEGUE Framework for teaching and assessing communication skills (118)
• Engage the patient • Join the patient • Elicit the agenda and the story • Set the agenda	Information gathering skills	Initiating the session	Exploring both the disease and the illness experience	**S**et the stage
• Empathise with the patient • The setting • Create a setting that is psychologically safe	Facilitation skills	Gathering information Exploration of problems Understanding the patient's perspective Structuring the consultation	Understanding the whole person	**E**licit information
• Educate the patient • Assess the patient's understanding • Assume questions • Assure understanding	Relationship skills	Building the relationship – facilitating patient's involvement	Finding common ground	**G**ive information
• Enlistment • Decision making • Adherence	Patient education and counselling skills	Explaining and planning	Incorporating prevention and health promotion	**U**nderstand the patient's perspective
		Closing the session	Enhancing the patient-doctor relationship	**E**nd the encounter
			Being realistic	

This conference resulted in *The Kalamazoo Consensus Statement* (91) which, identified the following tasks and skills as essential elements of physician-patient communication (Table 23, below):

Table 23 The Kalamazoo Consensus Statement: essential elements of physician-patient communication (91)

Task	Skills
1. To build a relationship - the fundamental communication task	a. Elicit the patient's story. b. Awareness that ideas, feelings and values influence the relationship. c. Respect patient's active participation.
2. To open the discussion	a. Allow patient to complete his/her opening statement. b. Elicit the patient's full set of concerns. c. Establish/maintain a personal connection.
3. To gather information	a. Use open-ended and closed-ended questions appropriately. b. Structure, clarify and summarise information. c. Active listening using non-verbal (for example eye contact) and verbal (for example words of encouragement) techniques.
4. To gain an understanding of the patient's perspective	a. Explore contextual factors (for example family, culture, gender, age, socio-economic status, spirituality). b. Explore beliefs, concerns and expectations about health and illness. c. Acknowledge and respond to the patient's ideas, feelings and values.
5. To share information	a. Use language the patient can understand. b. Check for understanding. c. Encourage questions.
6. To reach an agreement on problems and plans	a. Encourage the patient to participate in decisions to the extent he/she desires. b. Check the patient's willingness and ability to follow the plan. c. Identify and enlist resources and supports.
7. To provide closure	a. Ask whether the patient has other issues or concerns. b. Summarise and affirm agreement with the plan of action. c. Discuss follow-up (for example next visit, plan for unexpected outcomes).

4.23 Conclusion

The deterioration of communication is attributed to the ascendancy of the molecular- and chemistry-oriented sciences as the predominant 20th century medical paradigm. This resulted in a shift of the physician-patient interaction away from the person of the patient to the biochemistry and patho-physiology of the patient. The incorporation of the patient's perspective into medicine's definition of the patient's need has been suggested as the medical paradigm of the 21st century (68).

A reasonable and appropriate conclusion from the above literature review is that physicians should demonstrate empathy and compassion in their interaction with patients. Amidst an increasing dehumanisation of healthcare, research suggests an association between a physician's caring attitude and the patient's trust in a physician and satisfaction and compliance with proposed health care. When patients perceive their interaction with their physician to be personalised - they are listened to, respected and believe that they are talking to someone who wishes to help them - they feel special and cared for. Therefore, the dentist's attitude is most important when communicating with patients. Dental students' clinical mindset should therefore be reinforced with "softer" skills such as to:

- Build strong relationships with patients through communication skills;
- Discover a patient's "story" in terms of his/her expectations, psychosocial concerns and emotions;
- Present clear and effective treatment plans that will enhance a demand for comprehensive dentistry, and
- Integrate the fundamentals of business-, management- and leadership skills, with the traditional clinically- and technique-orientated undergraduate dental curriculum.

Phase 2 of the study, dental educational research intervention, will be presented in the following chapter.