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review

MiCD: Do no harm

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Dear Reader,

Dr Sushil Koirala
Editor-in-Chief

_At the end of 2014, the Asian Academy of Aesthetic Dentistry (AAAD), which is the pioneer aesthetic dental organisation in Asia, held its 13th biennial meeting and scientific conference in Foshan in China jointly with the Foshan Academy of Esthetic Dentistry. During the meeting, the new executive council committee for 2014–2016 was elected, and I am honoured to have been elected as the 14th President of the AAAD.

Clinicians from Bangladesh, China, Hong Kong, Japan, Korea, Malaysia, Nepal, the Philippines, Singapore, Sri Lanka and Taiwan attended the 44 lectures of the scientific programme presented by invited speakers in various fields of aesthetic dentistry. At the conference, Chinese clinicians learnt about the growing global trends in cosmetic dentistry and participants from other countries learnt about the rapid development of China in the field of aesthetic dentistry.

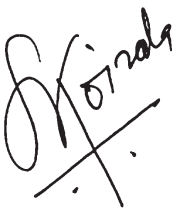
An international programme of this magnitude helps to promote professional collaboration, friendship and opportunities to share knowledge and skills among clinicians and academics in the region.

With the rapid development of information and communication technology, AAAD is now planning to launch an e-learning platform to provide the most cost-effective aesthetic dentistry educational opportunities to young dental professionals in Asia. This will be developed with the active participation of member countries' key clinicians and through joint collaboration with various like-minded professional academies, dental schools and dental experts, as well as dental companies around the world.

cosmetic **dentistry** being the official magazine of AAAD, I hope AAAD members will be able to put the information to full use to improve and share their clinical knowledge and skills.

In this year's first issue, we have two exclusive articles about digital smile design and cosmetic dentistry practice philosophy and other clinical case reports. I hope readers will enjoy them, and the cosmetic **dentistry** editorial team looks forward to your feedback.

Yours faithfully,



Dr Sushil Koirala
Editor-in-Chief
President of the Vedic Institute of Smile Aesthetics, Kathmandu, Nepal

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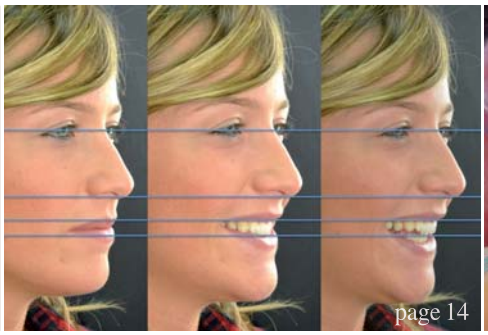
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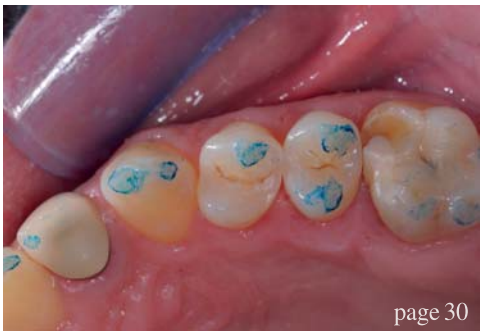
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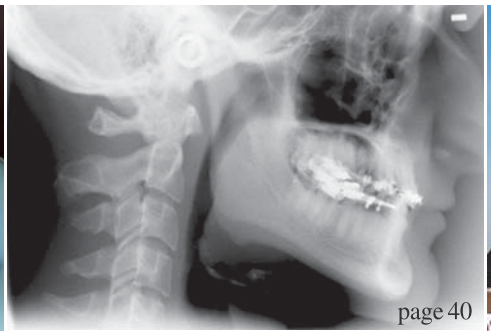
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MiCD: Do no harm cosmetic dentistry—Part I

Author_Dr Sushil Koirala, Nepal

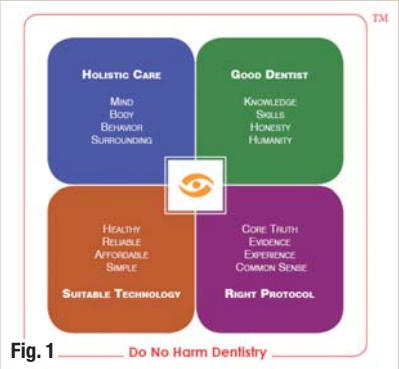


Fig. 1

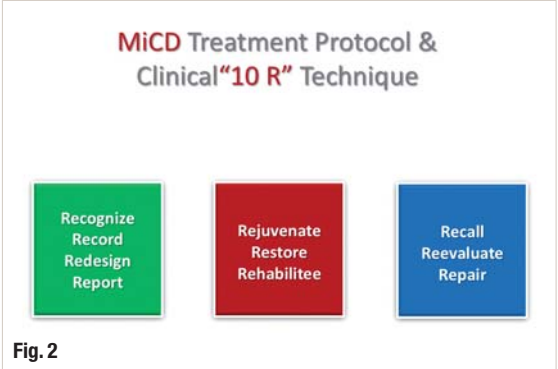


Fig. 2

Fig. 3

_Introduction

The demand for cosmetic dentistry is a growing trend globally. Increased media coverage, the availability of free online information and the improved economic status of the general public has led to a dramatic increase in patients' aesthetic expectations, desires and demands. Today, a glowing, healthy and vibrant smile is no longer the exclusive domain of the rich and famous; hence, many general practitioners are now being forced to incorporate various aesthetic and cosmetic dental treatment modalities into their daily practices to meet the growing demand of patients.


Fig. 4a


Fig. 4b

Cosmetic dentistry is a science-based art guided by the desire of the patient. Many young clinicians who plan to incorporate it into their practice are confused about what they and their patients actually wish to achieve. It is to be noted that the treatment modalities of any health care service should be aimed at the establishment of health and the conservation of the human body with its natural function and aesthetics. However, it is worrying to note that the treatment philosophy and technique adopted by many cosmetic dentists around the world tend towards macro-invasive protocols, and millions of healthy teeth are aggressively prepared each year for the sake of creating beautiful smiles.

The practice philosophy adopted by the clinic and the professional team members generally guides the overall output of the practice. Minimally invasive cosmetic dentistry (MiCD), a do no harm practice philosophy, has four fundamental components: level of care, quality of operator (dentist), protocol adopted and technology selected, which must all be respected in daily clinical practice. Adopting this holistic medical science practice philosophy is not an easy task, as it requires a change in the mindset of professionals.

In Parts I and II, I explain MiCD, do no harm cosmetic dentistry, based on my Vedic Smile concept, which I have been practising successfully in Nepal for the last 20 years, and advocating globally since 2009 as the MiCD global mission. It is to be noted that both parts are based on fundamental science (truth and available evidence), clinical experience and the common sense required in holistic dentistry. Part II of the article will follow in the next issue of cosmetic dentistry.

_Cosmetic dentistry, a global trend

The prevalence and severity of dental decay have been declining over the last decades in many developed countries and this trend is shifting towards developing countries as well. With increased media coverage, the availability of free online information, public awareness has fuelled the demand for cosmetic dentistry globally. Now, a glowing, healthy and vibrant smile is no longer the exclusive domain of the rich and famous.[1] The population of beauty- and oral health-conscious people is increasing every year and data from various sources shows that the coming generations of children, espe-

cially from the middle- to higher-income population, will have fewer decayed teeth and will need less complex restorative dental care as they age. These changing patterns of dental care needs will bring about a major shift in the nature of dental services from traditional restorative care to cosmetic and preventive services.

The increased market demand for smile aesthetics among patients is forcing general practitioners of today to incorporate the art and science of cosmetic dentistry into their practice. Cosmetic dentistry is not yet recognised as a separate clinical specialty like orthodontics, periodontics or paediatric dentistry. Cosmetic dentistry is synonymous with multidisciplinary dentistry, as its success and failure are related to the patient's psychology, health, function and aesthetics. Ethical, high-standard cosmetic dentistry skill training of clinicians is essential for the increased global market of cosmetic dentistry and its promotion. It is widely seen that the treatment modalities of contemporary cosmetic dentistry are tending towards more-invasive procedures with an over-utilisation of full crowns, bridges, dentine veneers, and invasive periodontal aesthetic surgery, while neglecting long-term oral health, actual aesthetic needs and the characteristics of the patient.[2] These aggressive treatment modalities are indirectly degrading social trust in dentistry, owing to the trend of fulfilling the cosmetic demands of patients without ethical consideration and sufficient scientific background and promoting the "the more you replace, the more you earn" or "more is more" mindset in dentistry.[2]

Changing the professional mindset of the practising clinician is not an easy task; it is just like quitting smoking for a heavy smoker. In order to practise healthy dentistry, one must be groomed, starting from dental school education, with moral values, a high ethical standard, a positive attitude and a patient-centred practice philosophy. A student reflects the mindset of his or her teachers, and a teacher or mentor with comprehensive knowledge, clinical skills, honesty and humanity is difficult to find in today's business-oriented dental education. I believe that knowledge should be free and skill training must be useful and easily affordable to our young practising clinicians around the world. Compromised university dental education and expensive private skill training with biased mentoring have been promoting health-compromising treatment protocols and costly diagnostic, preventive and treatment technologies. This highly business-oriented trend will promote a change in the mindset of practising clinicians to adopt more-aggressive and invasive dental treatment modalities, leading to the practice of unhealthy dentistry in the long term.

_Aesthetic versus cosmetic dentistry

The words "aesthetics" and "cosmetic" are viewed as synonyms by many cosmetic dentists. However, it is necessary to understand the core difference in meaning. The Oxford dictionary[2] defines "aesthetics" as "the branch of philosophy which deals with questions of beauty and artistic taste" and "cosmetic" as "improving only the appearances of something". In dentistry, "aesthetics" explains the fundamental taste of a person concerning beauty, whereas "cosmetic" deals with the superficial or external enhancement of beauty. Therefore, aesthetic dentistry falls under need-based dental service, and is generally guided by the sex, race and age (SRA factors) of the patient. However, cosmetic dentistry, which is influenced by perception, personality and desires (PPD factors), can be categorised as want- or demand-based dental service. For example, a patient's request to replace old amalgam restorations with tooth-coloured restorative materials can be considered an aesthetic requirement or demand. The request of an old woman for pearly white teeth and the ideal smile design is far more than an aesthetic requirement, and must be considered a cosmetic demand or requirement.

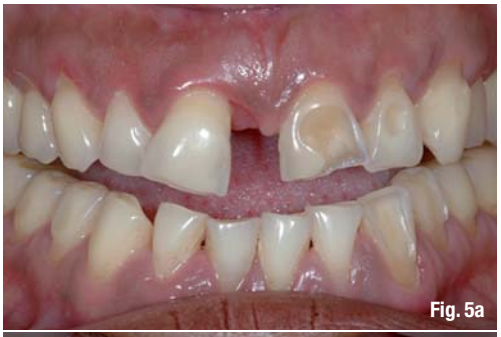


Fig. 5a

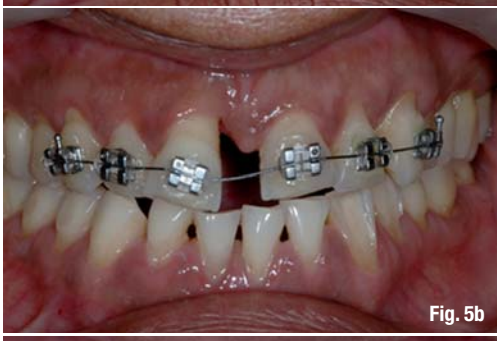


Fig. 5b

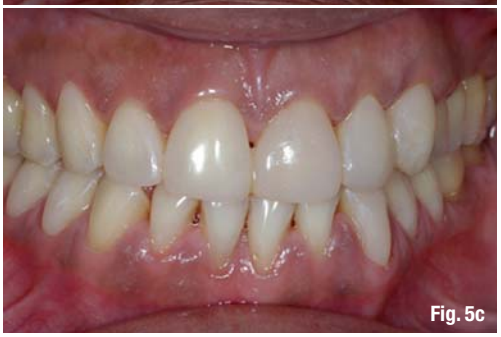


Fig. 5c

In my clinical practice, I divide aesthetic and cosmetic clinical cases into three different categories:

1. Preventive, or support based: treatment prevents or intercepts the diseases, defects, habits and other factors that may adversely affect the existing or the future smile aesthetics of the patient.
2. Naturo-mimetic, or need based: treatment is carried out to restore or mimic the natural aesthetics, bearing the SRA factors of the patient in mind, and the treatment generally enhances the health and function of the oral tissue.
3. Cosmetic, or desire based: treatment is performed to enhance or supplement the aesthetic components of the smile; hence, the treatment outcome of cosmetic treatment may not be in harmony with the patient's SRA factors as in nature-mimetic dentistry, and cosmetic treatment

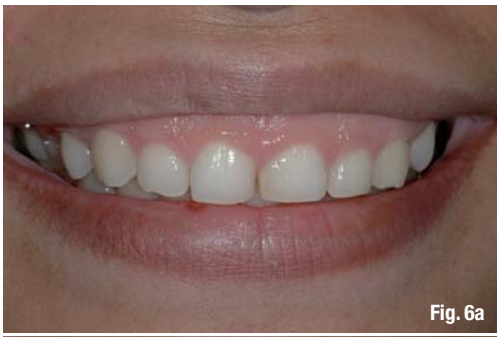


Fig. 6a

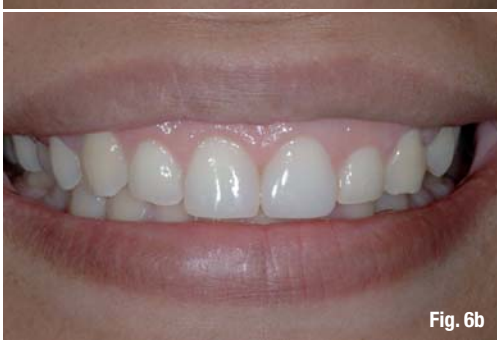


Fig. 6b


Fig. 7a


Fig. 7b


Fig. 8a


Fig. 8b

may not necessarily be beneficial to the health and function of the oral tissue.

_Practice philosophy in dentistry: The mindset

The majority of dental schools around the world focus on teaching knowledge and skills in dental medicine that are based on contemporary dental science and art. Dental school education does not give due consideration to healthy dental practice philosophy owing to various factors, such as the right to chose one's practice philosophy and the domination of business rather than service-oriented dental practice in the global market. However, quality and healthy clinical practice is always a dream of a good clinician, and establishing such practice requires an unbiased vision, learning and serving attitudes, and dedication from the dentist. We must understand that science and art in dentistry have no meaning if practised by an unethical operator, who does not respect the overall health of the patient. Any scientific advancement in technology has positive and negative sides; hence, if not applied properly, it may adversely affect the profession and may become a threat.


Fig. 9a


Fig. 9b


Fig. 10a


Fig. 10b

I believe that a clinic or treatment centre must establish its practice philosophy according to its objectives. What a clinician wants and the kind of services he or she wants to deliver to his or her patients guides the clinic. Practically, the practice philosophy in dentistry can be classified into two different categories, depending on the mindset of the operator.

Patient-centred

Clinicians with this kind of mindset generally have a do no harm dental practice (Fig. 1). Professional honesty and humanity are the fundamental principles of such a practice. Operators with this mindset enjoy sharing their clinical knowledge and skills with their professional friends and junior colleagues to promote patient-centred clinical practice in society. This group of clinicians firmly believes in the word-of-mouth approach to practice marketing and always thinks of the patient's long-term health, function and aesthetics. Clinicians practising do no harm dentistry are generally cheerful, happy and healthy in their professional life.

Financially focused

Clinicians with this kind of mindset practise a financially focused dentistry and adopt various kinds of direct marketing approaches to sell their dentistry like a commodity in the market rather than a health care service. Practitioners in this group generally achieve a secure financial position quickly; however, it is frequently seen that they develop chronic stress, burn-out syndrome, depression, frustration and professional guilt, leading to compromised health and happiness in their professional life.

Dentistry and professional stress

Dentistry has long been considered a stressful occupation. Dentists perceive dentistry as being more stressful than other occupations.[3] Dentists have to deal with many significant stressors in their personal and professional lives.[4] There is some evidence to suggest that dentists suffer a high level of occupation-related stress.[5–9] A study has found that 83 per cent of dentists perceived dentistry as "very stressful"[10] and nearly 60 per cent perceived dentistry as more stressful than other professions.[11] Stress can elicit varying physiological and psychological responses in a person. Professional burnout is one of the possible consequences of ongoing

professional stress. The effect of burn-out, although work-related, often will have a negative impact on people's personal relationships and well-being.[12–13] Hence, dentists need to take care of their staff's health and focus on professional happiness in daily practice.

A clinician has full right to adopt the practice philosophy that he or she prefers. However, it is always advisable to apply oneself to understanding, analysing and comparing this philosophy with others. I am very fortunate to have been brought up with the Vedic philosophy of the law of nature and the first, do no harm consciousness-based philosophy in my life at home, at school and in my society. The spiritual guidance and mentoring I received at an early age at home and school have helped me to become a professional with a firm philosophy of do no harm; hence, I started practising consciousness-based dentistry early in my career. During my 21 years of private practice, I have always experienced happiness and joy with high patient satisfaction, which has given me complete confidence and faith in my practice philosophy and the MiCD treatment protocol that I apply in my practice. Since late 2009, I have been promoting my practice philosophy and clinical protocol in South Asia, and started the MiCD Global Academy in 2012 with the help of like-minded friends, who also practise a similar kind of holistic dentistry around the world. The MiCD Global Academy has a mission to share clinical knowledge and fundamental clinical skills free of charge with all clinicians who desire to practise do no harm cosmetic dentistry for better patient care and to enhance their happiness in their professional life.

_Three-way test: Questions for your conscience

Cosmetic dentists can make errors in practice in two ways, first owing to a lack of the required professional knowledge and skills, and second owing to a lack of professional honesty and humanity. The first one can be eliminated with good education and proper training, but the second one demands a total shift in mindset, with a high level of consciousness in professional ethics, attitudes and respect towards the patient's long-term health, function and natural beauty.

I apply a simple yet very powerful test to keep myself stress- and guilt-free and within the boundaries of professional ethics, honesty and humanity when proposing a dental treatment plan to my patient. Clinicians can apply the three-way test mentioned below just by taking a deep breath and closing their eyes for few seconds and analysing their answers (the true response that comes to mind) with professional honesty and humanity. If your conscience responds positively to all the questions, then it is advisable for you to propose the treatment plan and take up the case, but if you give negative responses to the questions, then you should rethink your proposed treatment plan to safeguard your and your patient's long-term health, function and aesthetics using a more sensible and less destructive treatment approach.

The three-way test consists of three basic questions:

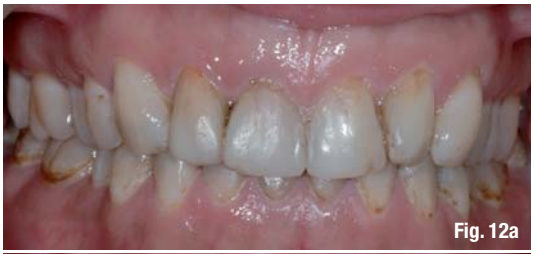
_Would I use this treatment for a member of my own family in this situation?
_Am I competent enough to take up the case?
_Will the patient be happy with the biological, financial and time costs of the proposed treatment?

I have been using this simple test since my early days of practice and enjoying every moment of my clinical practice without any mental stress and post-treatment professional guilt. Moreover, I have found that the end-result of my case has always brought happiness to me and to my entire supporting team with high patient satisfaction. During all my MiCD international lectures, training, workshops and seminars, I always encourage my trainees and audience to enhance the quality of their operator factors (knowledge, skills, honesty and humanity) because it is the pillar of successful MiCD. It is my personal belief that, if a clinician adopts a habit of testing his or her treatment plan with the three-way test before proposing it to the patient, it can certainly help him or her to promote overall happiness in his or her practice with high patient satisfaction.


Fig. 11a


Fig. 11b


Fig. 11c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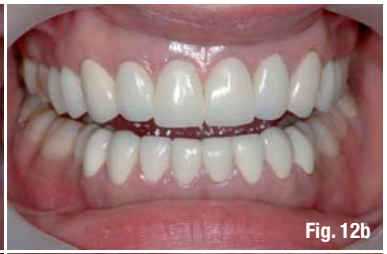
Fig. 12b

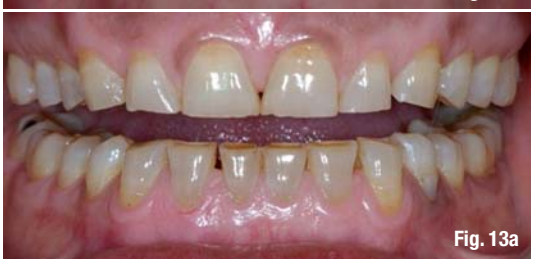
Fig. 13a


Fig. 13b