

# THE FINE LINE BETWEEN ESTHETIC AND COSMETIC DENTISTRY (A REVIEW)

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## ABSTRACT

**BACKGROUND:** With the rise of attention to physical appearance in our daily life, esthetics and cosmetics became an integral part of dental practice. Esthetic and cosmetic dentistry are two separate concepts each following specific guidelines. Although there is much confusion and ambiguity between them, there is a fine line differentiating both. Esthetics is often concerned with applying form and function while achieving a natural appearance. Cosmetics on the other hand is usually only about appearances and beauty without much consideration to neither form nor function. There is also an ethical and legal aspect to both concepts. The practitioner must be aware of the background and consequences of each concept before selecting the most appropriate dental procedure. Knowledge of this difference will help the dentist guide the patient during decision making.

**OBJECTIVES:** This review aimed at highlighting the correlation between esthetic dentistry and cosmetic dentistry.

**KEYWORDS:** Esthetic Dentistry, Cosmetic Dentistry, natural appearance.

**RUNNING TITLE:** Correlation between esthetic and cosmetic dentistry.

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## INTRODUCTION

Traditionally the dental profession has been concerned with treatment and prophylaxis. However, recently, esthetics has become an integral part of our daily lives and with the rise of cosmetic procedures, there has been many misconceptions, among both patients and practitioners, between cosmetics and esthetics in dentistry. Within the dental practice, patients have been having higher demands for esthetic restorations without being knowledgeable of what exactly they need. In this review, the differences between esthetic and cosmetic dentistry we will be briefly discussed. (1)

A correlation exists between esthetic and cosmetic procedures and it is essential to achieve harmonious form and function of the orofacial structures. Cosmetic dentistry is usually a short-term procedure that does not always seek perfect functionality nor mimicking the natural dentition. Whereas esthetic dentistry incorporates adequate biomechanical considerations in order to simulate the original natural dentition and achieve long term survival. (2)

## DEFINITION AND TERMINOLOGIES

There are rare specific guidelines to what is esthetic and cosmetic dentistry. The majority of dentists and population have mistakenly believed

that cosmetic dentistry and esthetic dentistry are identical terms.

From semantic viewpoint there is a difference between the two words. The Oxford English Dictionary has defined them as:

Cosmetic, adj. medical treatment concerned with improving the outside appearance without modifying its basic character.

Aesthetic, adj. linked to beauty and the understanding of its principles. (3)

These terms have been employed interchangeably: The Glossary of Prosthodontic Terms defined the esthetic dentistry as the branch deals with the beauty and attractiveness of natural or artificial teeth and restorations. (4) While cosmetic dentistry was not defined leading to confusion. However, there are many other different definitions of both terms. The noun word 'cosmetic' 'the art of beautifying or decorating' comes from Latinized form of Greek 'kosmetike', While the adjective word, 'cosmetic' from Latinized form of the Greek 'kosmetikos', 'garnishing or arrangement' or 'superficial to improve only the appearance'. The word 'esthetic' comes from ancient Greek 'aisthetikos', 'esthetic sensitive to feel and perceive

beauty'. (5) Aristotle thought that esthetics is the imitation of the ideal. (6)

The Collins Concise English Dictionary defined 'esthetic' as: something related to people's appreciation of beauty or art.; showing good and artistic taste. The same dictionary defined 'cosmetic' as 'the preparations applied to beautify the body especially the face, with no other function' and 'the preparations done superficially to make something look better, by covering up a greater flaw or deficiency. (7)

Accordingly, to distinguish between 'cosmetics' and 'esthetics' terms, it can be considered that esthetics is the philosophy that search and apply the beauty principles, while cosmetics is the preparation designed to beautify subject superficially.

Winkler and Orloff (8) described those terms, according to the treatment goals, as:

Cosmetic: reversible procedures to attain beauty that is determined according to different societies, cultures and time basis.

Esthetic: the dynamic customization to individual preference, expectations and psychology that is based on subjective criteria.

It was suggested that cosmetic dentistry does not improve the function, while enhancing appearance, whereas esthetic dentistry aim to obtain the ideal look and function with respect to long-term performance by combining different biological considerations. (9-10)

Cosmetic dentistry considered the application esthetics' principles and certain illusionary effects, to signify or enhance beauty of the individual to perfect the role he has to play in his day-today life. (11)

Although all those definitions try to differentiate between the two terms, there is still a common confusion and both are used interchangeably to describe things related to beauty (12).

#### GUIDELINES CONTROLLING ESTHETIC AND COSMETIC DENTISTRY

Esthetic dentistry aims at fixing problems, from a functional stand point while also ensuring that the appearance is optimal. Esthetic dentistry utilizes methods and techniques available to modern medicine that fulfill both the biological and mechanical guidelines. Common procedures done by esthetic dentists include regular scaling, root canals, and dental rehabilitation through different restorations such as crowns, bridges or conservative rebuilding; making your teeth appear natural and function healthily. Esthetic dentistry requires less accommodation by the surrounding soft tissue since it is considered minimally invasive. It combines satisfactory biologic parameters for long-term survival, functionality, and imitates the original untouched state of the natural dentition (9). One could think of esthetics as an application of beauty

measures while combining both form and function. It is rather the marriage of art and science. (10)

On the other hand, cosmetic dentistry employs more progressive and aggressive methods to beautify the dentition beyond perfection. It is regarded as an exaggerated approach that surpasses the natural appearance of teeth, an example of that is paper white color of teeth, which rarely occurs in natural teeth and does not serve in form or function. Cosmetic dentistry includes practices like bleaching, orthodontics, Invisalign, laminate-veneers, esthetic mockups, tooth accessories. (9) Also, under the umbrella of cosmetic dentistry, Botox and fillers have recently been added. (12) The concept is to provide paper-white, straight-almost-square teeth that are considered "flawless". Cosmetic dentistry is regularly viewed as a temporary procedure that does not necessarily provide ideal long-term functionality and rarely represents the unaltered untouched original shape of natural dentition. (13)

It can be concluded that the practice of cosmetic dentistry targets looks and exaggerated beauty, with no regards to the functionality of the restoration (5). (Figure.1)

Five considerations in cosmetic and esthetic dentistry (2)

The dental industry has flourished to satisfy the demands for esthetic intervention:

This is assumed to be a direct influence of the media, which lead to an increased demand for dento-facial esthetics. In return, the dental industry has responded through novel procedures such as bleaching kits, fillers and Botox services becoming available in dental offices, metal free tooth colored filling fillings. (13)

Unnecessary restorations and over-treated teeth produce early complications:

Overtreatment such as redoing several veneers for healthy teeth will result in biological dangers, which will eventually lead to loss of the structural strength and durability, and consequently the tooth may require endodontic intervention. (14)

Over-bleaching leads to sensitivity:

One in every three patients that undergo bleaching via peroxide-based tooth whitening agents, will suffer from tooth sensitivity and gingival irritation. (15)

Injectables for restoring the aging face should be done only after an informed consent is obtained:

Routinely, Botulinum toxin and dermal fillers were administered by dermatologists. Cosmetic training has now become available to dentists as they attempt to provide those services within their private practice. Therefore, an informed consent explaining all the possible complications or side effects is necessary. (16)

Improper crown lengthening procedures will harm overall esthetic and health outcomes:

Failure of proper diagnosis results in dentists performing crown lengthening by gingivectomy

only without the necessary osseous re-contouring, thus the biological width will never be established. Invasion of the biological width will result in gingival re-bound, the position of the gingival margin will be unpredictable and the definitive restoration will be affected. (17)

#### DIFFERENCES BETWEEN ESTHETIC AND COSMETIC DENTAL APPROACHES

All dental procedures affecting appearance can be classified as esthetic or cosmetic dentistry, and the definitive determinants are longevity, predictable health, and harmonious function. (13)

Although there is a distinguished difference between both approaches there still exists a fine line between them since it is variable according to subjectivity. (18) One may consider "paper white" teeth to be attractive while other perceive it as artificial and lacking natural beauty.

There is no definite right or wrong, whichever principle one chooses to follow is a matter of personal preference. (19)

Table 1. Highlights some of the key factors that distinguishes esthetic and cosmetic procedures. (7)

#### ETHICAL AND LEGAL CONFLICT

Basically, dentistry is the specialty that is, from ethical viewpoint, interested in prevention and treatment of oral diseases to preserve a good health in harmony with the stomatognathic system. (20)

Almost every decision in esthetic or cosmetic dentistry starting with diagnosis bears the ethical and legal component. (21)

Dental Esthetics includes several interdisciplinary dental procedures, following universal principles to be harmonized with the overall health. (22)

Dental cosmetics are procedures that, do not seek the reconstruction of function, just beautifying. It may interfere with the healthy tissues without taking any prophylactic measures, leading to limited durability. It seeks only embellishment, which contradict the esthetics concept. (13)

Some cosmetic procedures might scarify and damage a healthy tissue to correct a minimum malposition or attain a wide buccal corridor. (Figure. 2)

Those procedures are not considered natural esthetic beauty and may lead to excessive grinding overlooking pulp protection that may end up with tooth loss and disfigurement. This is considered as a "cosmetic crime" that is an unethical procedure. (23-25)

The biological considerations should be assessed and respected by practitioners. Arranging bleaching shade teeth with ideal shape and form specially for old patients, giving them fake appearance, and overlooking the natural tooth health and the aging process should be avoided. The preservation of natural tooth health must be the aim of cosmetic dentistry by sticking to the "minimal invasive" concept. (5).

On the contrary, esthetic dentistry is considered as a bio-esthetic discipline which emphasizes the beauty of subjects with respect to their original appearance and functions.

With the "too fine" boundaries between esthetic and cosmetic, the dentist should follow objective criteria when planning the optimal treatment. The patient may seek the dental clinic for esthetic reasons only, but after clinical examination, the dentist will notice functional problems that should be corrected to achieve the balance between the function, esthetics and phonetics. (19)

Some patients who understand the esthetical principles will be satisfied with the treatment outcome after solving the esthetic problem. Other patients who seek cosmetic treatment only may be unsatisfied with the treatment outcome, even if the esthetics was improved. For example, those patients who don't respect their age and ask for too bright bleaching shades. Those patients must be treated with respect to the rule of "primum non Nocera", first do no harm to avoid any ethical conflict (18).

The dentist should decide the appropriate treatment plan that may include orthodontics, conservative treatment, and dental prosthetic. This is according to a "proper diagnosis" according to a full and accurate case history and examination.

The practitioner must be able to differentiate between the two treatment options and procedures, to explain it to the patient and guide him to choose the most suitable and best treatment option from all the alternatives. (26)

Dentist can use The Daughter Test to help him in making a more accurate and ethical decision, by asking himself 'would I perform this operation on my own daughter?'

It will initiate a change in the treatment plan by involving a more rational and less eradicated procedures that preserve the teeth, oral structures and patient health in a much longer term. (27)

#### WHICH WAY TO GO? ESTHETICS OR COSMETICS?

It is essential that the practitioner knows the fine guidelines governing both aspects of dentistry whether esthetic or cosmetic. It is the role of the dentist to explain those guidelines to the patient and to aid in the decision making when selecting the most appropriate procedure (28).

In summary, dental esthetics covers multiple dental maneuvers, often multidisciplinary, with the aim of optimizing the function and morphological rehabilitation of the stomatognathic system, applying the worldwide esthetic parameters in harmony with promoting the overall healthy well-being of the human body. (13,29)

Dental cosmetics alternatively, is a set of maneuvers that, although have a medicinal nature, don't pursue the restoring of the oral function. They just have a beauty-driven aim, jeopardizing the health of

surrounding tissues without any prophylactic effect, usually while restricting long-standing durability. Often these maneuvers do not comply with the codes of bioethics. (13)



**Figure (1):** Difference between a natural smile and an artificial smile.



**Figure (2):** Difference between normal and wide buccal corridor.

**Table (1):** Factors differentiating between cosmetic and esthetic dentistry

Factor	Cosmetic dentistry	Esthetic dentistry
The need for surrounding tissue accommodation/ tolerance	Requires extensive tissue accommodation and alteration due to its invasive nature	requires minimal accommodation by tissue due to its conservative nature
Short-term (interim/provisional)	Consciously selected	Not selected
Long-term (durability)	Rarely chosen	Always chosen
Function	Not ideal	Ideal
Pristine Natural State of dentition	Does not emulate (looks artificial)	Always emulates (looks natural)
Health	Does not sustain, enhance nor promote good health	Sustains, enhances and promotes good health
Superfluous decoration	Usually provides	Never provides
Techniques	Compromised	Uncompromised
Choice of material	Least irritating/ cheapest	Non irritating/ not cheap
Quality of material	Secondary importance	Primary importance
Modifying appearance	Yes/ short term	Yes/ long term
Therapeutic	Yes/ short term	Yes/ long term

**CONCLUSION**

The theory of application of esthetics is more intricate than that of cosmetics, which infers that esthetic dentistry is a multifaceted approach compared to cosmetic dentistry.

After all the ultimate goal is to select the most appropriate treatment option that fulfils both biological and mechanical needs while obtaining the most desirable esthetic result within the ethical limits of the profession.

With these concepts being relatively recent and the border between esthetics and cosmetic dentistry being somewhat subjective, undoubtedly, they still need to be researched. Additional investigations are recommended to make clear the variances between them on an evidence-based scientific level.

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