

Cosmetic Dentistry and Decorative Diamonds in Prosthodontics

Louis Z G Touyz*

Department of Dentistry, McGill University, Canada

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***Corresponding author:** Louis Z G Touyz, Department of Dentistry, McGill University, Faculty of Oral Health and Associated Sciences, Montreal, Canada, E-mail: touyzlouis@gmail.com

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Abstract

Provenance and Background: Cosmetic Dentistry is different from Esthetic Dentistry; Cosmetic Dentistry is mainly pre-occupied with appearance, is temporary, and includes frivolous decorations. Esthetic dentistry emulates Nature and is durable. Gold, although not naturally colored, is an excellent restorative metal and was ubiquitously used in dentistry until increase in price constrained its use. Cut diamonds are extensively used in Jewellery. The use of metal as gold-and-diamonds has become more prevalent in affluent circles.

Aim: This article reviews the criteria for cosmetic and esthetic dentistry, appraises case reports of diamonds and metal-and-diamonds set into teeth and discusses the advantages and disadvantages arising.

Conclusion: Diamonds in teeth are cosmetic and in the long-term may not enhance oral or dental health.

Keywords: Cosmetic; Diamonds; Esthetic; Gold; Confirmative; Restorative

Abbreviations

CD = Cosmetic Dentistry

ED = Esthetic Dentistry

GAD = Gold and Diamonds

MAFD = Metal-And-Fake-Diamond

TD = Theatrical Dentistry

Introduction

Nearly all procedures in dentistry are elective and can be grouped as Cosmetic Dentistry (CD) or Esthetic dentistry (ED). Gold, although not naturally colored, is an excellent restorative metal and was ubiquitously used in Dentistry

until cost rose from US\$30 to US\$1800 per ounce, constrained its use. Frivolous dental-decoration as Cosmetic Dentistry (CD) has been known to Mankind for millennia [1,2] and was done by various communities; this included tooth staining [3,4] decoration [4,5] or mutilation [6-8]. CD can produce a physiological reaction (like gingival hyperplasia or inflammation), is not durable, and does not aspire to copy perfect pristine nature. CD may be purposefully decorative, and when voluntarily selected by a recipient, CD is generally not expected to last [9,10]. The peak practice of Cosmetic Dentistry is Theatrical Dentistry TD [11]. Esthetic Dentistry (ED) induces minimal, if any, physiological reaction, survives in health, copies pristine nature, and is expected to be durable [9]. Ideal prophylactic, confirmative, restorative and soft-tissue surgical dental techniques are used in dentistry to restore optimal health with ideal form and function. These are practiced globally by trained, certified and professional dentists, who take decisions for treatment in the best interests of the patient. However, often patients request unconventional forms of dental care which are purely decorative. Many dentists and oral health care workers, surrender to patients demands, and consequently apply modern prosthetic techniques to satisfy these unusual requests. The use of gold or gold-and-diamonds has become more prevalent in affluent circles [12,13].

Aim

This article reviews the criteria for cosmetic and esthetic dentistry, appraises case reports of diamonds, Metal-and-Diamonds (MAD) set into teeth, a MAD splint, and.

discusses the advantages and disadvantages arising, and stresses why this mode of treatment selection is deemed cosmetic dentistry. There are major differentiating features between Cosmetic and Esthetic Dentistry (Table 1 and Figure 1 to 11).

Table 1: Differences between Cosmetic and Esthetic Dentistry [10].

Cosmetic Dentistry	Esthetic Dentistry
Minimal accommodation or tolerance	No physical accommodation or tolerance
Consciously temporary	Long-term durable
Not ideally functional	Optimal good function
No natural emulation	Emulates natural state
No health enhancement	Promotes health
Superfluous decoration	No decoration
Compromised form	Form ideal



Figure 1: Gold and enamel full upper prosthesis and lower removable partial Prosthesis. This is technically an accomplished manifestation of gold-and-porcelain skills but does not emulate nature. This is typical Cosmetic Dentistry.



Figure 2: Cosmetic dentistry: Upper front incisors and canines replaced with removable acrylic prosthesis, and #18 (ADA numeration) is frivolously decorated with gold \$ sign and #19 has a class IV gold inlay on the distal and incisal edges [10].



Figure 3: Cosmetic dental diamonds. Emerald-cut diamonds, set into gold crowns on teeth 11, 12 (ADA numeration). This is an example of Metal-and-Diamonds. (MAD) This gratuitous decoration is regarded as frivolous cosmetic dentistry. Teeth should not be regarded as receptacles for jewels but as functioning biological organs [14].



(4A)



(4B)

Figure 4A: Cosmetic Dentistry: Pre-operative presentation. Restored with confirmative techniques, mostly temporary and not emulating pristine natural dentition. Note marginal gingivitis and inflamed swollen inter-dental papillae.

Figure 4B: Esthetic Dentistry: Post operative, full mouth rehabilitation using esthetic dental techniques, expected to be durable, and hence deemed permanent and esthetic. Note healthy recovery, adaptation and resolution of inflammation of gingiva [10].



Figure 5: There is a Rhinestone crystal (fake-diamond) on tooth-09 (ADA tooth numerical system). This is an example of Metal-and-Fake-Diamond (MAFD). This type of dental therapy does not emulate pristine nature and it is regarded as cosmetic [14].



Figure 8: The embedded diamond shown in Figure 6 on tooth-12 is seen when the patient smiles. The patient asserts the diamond gives her a 'sparkling smile', and she uses it as a social primer to open conversations with people [14].



Figure 6: There is a brilliant-cut diamond set in gold, embedded into the natural enamel of tooth-06 (ADA tooth numerical system). This is an example of MAD. This type of dental therapy does not emulate pristine nature and it is regarded as CD [14].



Figure 9: Here an anterior prosthesis has pseudo gold-restorations as well as inlaid Rhinestones held in position with metal clasps. This is an example of Metal and-Fake-Diamond (MAFD). The stone on tooth-09(ADA numeration) fell out and is missing. This type of dentistry is deemed cosmetic [14].



Figure 7: There is a small "pointer" diamond held with polymer-composite cement embedded directly into natural tooth of tooth-12(ADA tooth numerical system). This type of dental therapy does not emulate pristine nature and it is regarded as cosmetic [14].



Figure 10: This is a removable, worked gold metal-and diamond splint embracing teeth-05,-06,-07,-08,-09,-10,-11,-12, (ADA tooth numerical system), constructed in gold and embedded with diamonds. This is GAD (gold-and diamond). It is intended to be worn over natural teeth and used as an adornment like jewelry. It is custom made to fit the patient's front eight anterior teeth.



Figure 11: A metal (GSold) and Diamond splint (GAD) shown in Figure 10 above, is placed *in situ*. The GAD Shows the incisal tips of the anterior incisal teeth. This type of dental therapy does not emulate pristine nature and it is regarded as cosmetic.

Discussion

Placing any unnatural object into the human body is considered as body-piercing [14,15]. This may be of a temporary or permanent nature. Even if the dental diamond is initially regarded as permanent, placing diamonds for decorative purposes in teeth does not emulate pristine nature and it is regarded as cosmetic. Consequently, any embedded diamond is not regarded permanent and may fall out. See Figure 9. Diamonds placed into a tooth will rarely induce inflammation of the soft tissues, as they are remote from direct contact of the mucosa. A fixed cemented Metal-and-Dental-Diamond [MAD] may act as a locus for the oral biofilm to accumulate or stagnate. Because stagnating biofilm may induce decay formation as well as adjacent gum disease [16], any form of cosmetic dentistry demands stringent regular cleaning. A GAD and/or MAD can induce a frictional keratosis on the mucosa opposite to it. Social values and pressures invoke people to modify their dental appearance away from the range of what is considered healthy and natural and may choose to add odd colors or jewellery to their teeth [9]. Strange multi-colors can be chosen, especially those hebephrenic teenagers who wish to conform to social peer-pressure [9]. But metal-and-precious stones have become more desirable to flaunt wealth. Understanding this, it is not surprising that in affluent societies with high disposable incomes, Gold-and-Diamonds

[GAD] are voluntarily selected and this trend, set in opulent communities, are aped in other impecunious communities with Metal-and-(Fake)-Diamonds, (MAFD). The cosmetic GAD is transformed into MAFD. Fixed prostheses are generally preferred to removable devices. Optimal form and function are primary aims in dentistry, and the appearance impact should be deemed to be visually harmonious. The noble ideal of dental therapy embraces a comprehensive holistic approach towards patients, for not only are optimal form, appearance and oral functioning desirable goals, but also psychological wellbeing and equanimity of the patient.

Concluding Remarks

Persistent patients requests for unconventional forms of dental care produces ‘treatment’ that is purely decorative. Many dentists and oral health care workers, yield to patient’s pleas and consequently modify modern prosthetic techniques to satisfy these unusual demands.

Cosmetic dental diamonds are becoming more prevalent, and it behoove dental health care workers, when CD is voluntarily insisted upon by the patient, to be aware of problems arising from CD and to execute any CD with minimal potential harm. Choosing cosmetic dentistry should come solely from, and at, the patient’s insistence. Monitoring CD regularly is essential to ensure that there is no unwanted or potentially destructive reaction happens.

Conclusion

When acceding to integrate diamonds into dentistry, the best principles of dental treatment primarily must embrace “Do no harm,” and accordingly, Cosmetic Dental Diamonds, is probably never the first or best choice for ideal therapy by trained professional registered dental health care workers.

Author’s Statement

The author has no conflict of interest to declare.

References

1. Pezzoli M. In: Tooth decoration in pre-Columbian America. *Minerva Stomatol.* 1976;25(1):33-48.
2. Van Reenen JF. Swallow-tail form of tooth mutilation amongst early Iron-Age people living at Broederstroom Transvaal, circa 500AD. *J Dent Assoc S Afr.* 1977;32(9):529-33.

3. Flynn M. Black teeth: a primitive method of caries prevention in Southeast Asia. *J Am Dent Assoc.* 1977;95(1):96-7.
4. Ai S, Ishikawa T, Seino A. “Ohaguro” traditional tooth-staining custom in Japan. *Int Dent J.* 1965;15(4):426-41.
5. Fitton FS. A tooth ablation custom in the Maldives. *Br Dent J.* 1993;175(8):299-300.
6. Fastlicht S. *Tooth mutilations and Dentistry in pre-Columbian Mexico.* Passim: Quintessence Books, Berlin; 1976.
7. Jones A. Dental transfigurements in Borneo. *Br Dent J.* 2001;191(2):98-102.
8. Jones A. Tooth mutilation in Angola. *Br Dent J.* 1992;173(5):177-9.
9. Touyz LZG. Cosmetic Dentistry: Unnatural Coloring of the Dentition. *Oral Health and Dentistry.* 2018;3(5):744-50.
10. Touyz LZG, Raviv E, Raviv M. Cosmetic and Esthetic Dentistry? *Quintessence Int.* 1999;30(4):227-33.
11. Touyz LZG. Theatrical Dentistry. Principles and practice. *Cosmetol & Oro Facial Surg.* 2016;2:106.
12. Touyz LZG, Nassani LM. Osseointegrated Implants Deemed Cosmetic or Esthetic? *Scientific Archives of Dental Sciences.* 2023;6(1):5-7.
13. Klokkevold P. Oral Implantology. In: Carranza’s Periodontology. 10th Ed. Newman MG, Takei HH, Klokkevold PE, Carranza HA. editors. Chapters 73-81. Passim: Saunders/Elsevier; 2006. p. 1072-90.
14. Touyz LZG, Lamontagne P, Mojon P. Diamonds and Cosmetic Dentistry. *Restorative and Aesthetic Practice.* 2004;6(4):10-7.
15. Touyz LZG. Body Piercing and Tattooing; the oral Implications. *Clinical Dentistry UK.* 2008;24-8.
16. Touyz LZG. The Pathophysiology of Oral Biofilms and it’s relation to Initial Gum Disease and Caries. *J Dent Oral Disord Ther.* 2017;5(4):1-6.