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A Scoping Assessment Of The Literature On The Effects Of Cosmetic Dentistry On Dental Public Health

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ABSTRACT

In recent years, cosmetic surgery has witnessed a sharp rise in popularity, and dentistry has followed suit. Concerns regarding the possibility for biological and psychosocial harm from these cosmetic operations were raised by the Department of Health. Additionally, the effects of the expanding use of aesthetic dental operations on dental public health (DPH) have not been investigated. Conduct a scoping review to examine the DPH effects of cosmetic dentistry and pinpoint any open questions for further study. Studies found using the search terms cosmetic AND dentistry underwent a five-stage scoping evaluation. 55 papers (10 cross-sectional studies, 10 literature reviews, and 35 opinion pieces) met the inclusion criteria. Five emerging themes—dento-legal and ethical, marketing, psychological, biology, and workforce—were used to summarize the DPH implications. According to the scoping review, the majority of the literature on cosmetic dentistry is anecdotal—professional discussions and opinions. Despite this, our research showed that the growing demand for aesthetic dentistry had an impact on governance and workforce training. To inform evidence-based policy to protect patients and raise the standard of dental care, more empirical research is required to comprehend the DPH implications of the rising demand and adoption of cosmetic dental operations. A scoping assessment of the literature on the effects of cosmetic dentistry on dental public health.

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Key words: cosmetic dentistry, aesthetic, dentistry, public health, scoping review, marketing, ethical issues, tooth whitening

INTRODUCTION

Dental public health (DPH) includes psychosocial elements of oral health and is described as the science and practice of preventing oral disease, promoting oral health, and enhancing quality of life through organized social initiatives (1). The planning and management of health services, oral health disparities, and social justice must all be taken into account in order for society to make progress in improving the oral health of its population. The New Zealand Dental Council's (2009) definition of cosmetic dentistry is thought to be the most acceptable among the several definitions because it acknowledges both the biological and psychosocial aspects of cosmetic dentistry. In the context of this review, cosmetic dentistry is defined as: Oral or maxillofacial operations that modify or alter the shape, size, color, texture, or location of orofacial hard and/or soft tissues with the express purpose of enhancing the patient's look or sense of self-worth. In the absence of pathology, cosmetic treatments are typically elective and have as their main goal the improvement of the patient's appearance.

In the last five years, the number of dental cosmetic operations has increased by 50% (2). The UK dental market is estimated to be worth £5.7 billion, 42.5% of which is private; the majority of cosmetic dentistry is anticipated to be performed in this private sector (Office of Fair Trading, 2012). Many factors, including the drop in dental caries in developed nations, the increasing importance that societies place on beauty, and the influence of the media, have led to an increase in the demand for and availability of aesthetic dental care (3,4).

According to a New Zealand poll, 85% of general dentists believed that patients who wanted cosmetic dentistry had referenced reality television shows like "Extreme Makeover," which show people getting surgical aesthetic operations, in their consultations (4). Additionally, it has been hypothesized that viewers of reality television programs featuring celebrities who have undergone cosmetic dental operations may be more prone to normalize such procedures and view them as "less dangerous".

Cosmetic dental operations can have negative effects, especially when sound tooth tissue is irreversibly removed, which can cause teeth to enter the "restorative failure cycle." Pain, pulpal devitalization, dental abscess formation, and sepsis are possible after invasive cosmetic operations including full coverage crowns and bridges; as a result, teeth may need endodontic treatment or extraction (5,6).

The dentist must explain the advantages and potential hazards of each planned procedure in order to acquire informed consent (7). Therefore, in order to obtain the patient's informed, autonomous consent,

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the dental professional must weigh the relative psychosocial benefits of cosmetic procedures against the risks of the procedure and its potential for failure. The dental professional must then communicate this information to the patient in a neutral manner.

Beneficence - "the value of doing good," Non-maleficence - "not injuring others," Autonomy - "respect for a person's capacity to determine what happens to them," and Justice - "a call for patients to be treated without prejudice" are the categories under which biomedical ethical concepts fall (7).

When planning aesthetic dental procedures, these ethical values could be at odds: independently requested elective cosmetic therapies could be detrimental to a patient's oral health. In modern medicine, where patients are informed by traditional and digital media, maintaining patient autonomy is considered as essential (8). This can occasionally make it difficult to balance the moral precepts of beneficence and non-maleficence while upholding patient autonomy.

In a recent examination of cosmetic treatments, the Department of Health (DH) expressed concerns about the necessity for adequate professional standards, quality control, and the implementation of pertinent patient outcome monitoring. The assessment also identified comparable issues with cosmetic dentistry and suggested a focused review of this field (9). There hasn't been much research done on the effects of cosmetic dentistry on public health, despite this suggestion and the rising availability of cosmetic dental procedures. In order to analyze and synthesize the available literature on aesthetic dentistry, a scoping review was performed (10).

This scoping review's objectives were to describe the existing literature on the DPH effects of cosmetic dentistry in adults and to identify substantial knowledge gaps that may be filled by additional research.

MEHTOD

The terms "cosmetic AND dentistry" were used in a broad search, first as a pilot with the electronic database Scopus to confirm the suitability of the search terms to provide results pertinent to the study subject. Two reviewers evaluated 12 articles from the pilot search to make sure the selection criteria were adequate. The selection criteria were changed to only include papers published within the last 15 years after it was determined that the amount of included papers was unmanageable. Older studies were deemed to be out of date by today's criteria because aesthetic dental trends change quickly.

Regarding the selection criteria, because the review's main objective was to examine common cosmetic dental operations performed on adults in general practice, specialist maxillofacial procedures were excluded. The use of implants, which are frequently used to replace teeth lost due to pathology, trauma, or congenital absence, was also disallowed. Articles about pediatric orthodontics, orthognathic oral and

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maxillofacial surgery, extra-oral facial aesthetic procedures like Botox or dermal fillers, unusual cosmetic dentistry procedures like lasers, and marketing for cosmetic dental items were prohibited. Unless the reviewers determined the title to be clearly relevant to the review, papers without an online abstract were also disqualified.

English language (or English translated) randomized controlled trials, case-control, cohort, cross sectional research, and expert opinion were the inclusion criteria. The publications mentioned the DPH consequences of veneers, crowns, bridges, teeth whitening, composite restorations, and adult orthodontics in addition to including the chosen keywords.

The following DPH-related topics were found in the articles that were retrieved: concepts of health, health need, quality, determinants of health, disparities in oral health, preventive measures, evidence-based practice, epidemiology, demography, planning and management of health services, health promotion, medical statistics, sociology, psychology, health economics, ethics, and financing (Daly et al., 2013)

The data charting form was created by two researchers and tested on five publications to determine whether it could be used for the various sorts of retrieved studies. A summary of the findings or key discussion points was then taken from each article once it had been categorized according to the sort of study it was. Themes that characterized the primary DPH implications of cosmetic dentistry were found in these data.

RESULTS

The criteria for inclusion were satisfied by 55 articles. There were 10 literature reviews, 10 cross-sectional studies, and 35 opinion pieces. The results revealed five themes: marketing, patient psychological effects, biological effects on patients' teeth, workforce implications, and dento-legal and ethical problems.

A recurring theme in the discussion of dentistry and ethics was the range of ethical positions that were taken, from claims that teeth bleaching was moral because it was predictable and non-invasive to cautions about the moral ramifications of aggressive tooth substance removal for cosmetic procedures (11). Numerous authors advocated for the adoption of minimally invasive procedures that patients could still find attractive (12,13).

The most accepted type of cosmetic dental therapy, according to empirical evidence, is teeth whitening, although there is a spectrum of what is deemed to be "ethical" cosmetic dentistry. According to a study of dentists, invasive procedures including indirect porcelain veneers and amalgam replacement were less ethical than tooth whitening, braces, and direct-bonded restorations (14).

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Another ethical concern was patient safety, with discussion papers focusing on the challenges of overseeing and controlling the delivery of teeth-whitening services to clients in salons (15).

Dento-legal suggestions for practitioners included the need to work within their specialized knowledge and abilities, adhere to GDC norms and guidelines, and maintain current knowledge (11,16). Additionally, it was suggested that dentists make sure their obligations to diagnose diseases related to oral health are not neglected in favor of aesthetic procedures (11). To prevent litigation, it was highly advised that patients give their consent in writing and that consent must be updated throughout long treatment regimens (17).

Other debates focused on the difficulty of patient communication (16), such as the value of clear communication and the avoidance of terminology like "permanent" by practitioners due to the transient nature of many cosmetic operations. Regarding "communication," dentists' expertise and status as professionals raised still another issue. It was advised that practitioners of cosmetic dentistry should be truthful about the fact that they are general dentists; various authors cautioned against practitioners who falsely identify as specialists (18-20). Exaggerated expertise claims and the exploitation of unrecognized qualifications by cosmetic professionals were also exposed (13).

As a last ethical point, the commercialization of the profession and potential professional conflicts were brought up. This tension was referred to as "commerce versus care," and it was said that some practitioners were prioritizing their own financial gain by giving needless care, charging excessive fees, and failing to refer patients to specialists (13). It has been argued that this professional conflict could damage dentists' reputation as legitimate healthcare providers (21). However, a different viewpoint (22) suggested that patients are knowledgeable, aware of their preferences, and may have looked into their options. Glick noted that worries about overtreatment and overcharging permeated all facets of dental professional practice, not just cosmetic dentistry.

In conclusion, important areas of concern in the dento-legal and ethical considerations topic were communication problems, staying within your own professional comfort zone, and the growing commercialization of dental treatment. These issues are directly related to the next topic, which is how dental clinics use marketing and business methods.

The strategy dental professionals might use to encourage their patients to choose aesthetic dental operations is encapsulated by the marketing theme. These techniques included "educating" patients about the advantages of cosmetic dentistry (23-25), providing financing options, performing cosmetic dental examinations, giving the dental team "smile makeovers" (26-28), enhancing the practice's decor (23,25),

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and using pull-in techniques, like providing discounted teeth whitening as a gateway to patient acceptance of other cosmetic procedures (27,29).

Psychological Impact theme outlined the hazards and potential psychological advantages for patients. It has been suggested that treating patients' discontent with their oral appearance with cosmetic dentistry can have positive psychological effects on them. Risks of post-treatment unhappiness exist, though, particularly for patients with body dysmorphic disorders.

It was observed that cosmetic operations had some favorable effects on self-esteem. In a study of 44 individuals, it was discovered that those who had cosmetic dental operations to address a cosmetic dental issue with their teeth performed better on a body-esteem questionnaire than those who had not. However, there were also warnings in the included literature that patients who choose elective cosmetic dental procedures may be more likely to experience post-operative dissatisfaction as a result of anxiety, depression, body-area dissatisfaction, or body-dysmorphic disorder (30-32).

Biological Impact included studies' discussions of the biological effects of cosmetic dental operations mostly focused on the durability and dangers of crowns, veneers, teeth whitening, bonding, and adult orthodontics. In addition, the repercussions of removing tooth tissue, treatment failure, and potential non-vitality were underlined (17). These included the necessity for later replacements, repairs, and maintenance.

The workforce effects of the growing popularity of cosmetic dentistry were also examined. According to some (25,33), the dental profession should prepare for the necessary capacity and skill-set needed to fulfill the growing cosmetic dentistry demands and expectations of an ageing population maintaining their teeth. The dramatic drop in dental disease was explored in a literature analysis by Currie and colleagues (2012) comparing dental services in the UK with the USA. Due to this modification, orthodontics and other cosmetic dental operations were now in more demand.

DISCUSSION

Reviewing the literature on cosmetic dentistry was our main goal in order to summarize the main consequences of DPH and pinpoint potential areas for further investigation. The articles that were collected produced five main themes: workforce, marketing, psychological effects, biological effects, and dento-legal and ethical aspects. These topics were interconnected, and some recurring sources of worry included the potential effects of age-related increases in demands and expectations, professional dental training and skills, commercial dental advertising, psychological risks to vulnerable groups, iatrogenic injury, and the acceptability of teeth whitening.

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The subjects of marketing, ethics, and dentistry were all closely intertwined. An increasingly commercial culture inside dentistry was thought to be fostered by patients' growing expectations for cosmetic dental operations. Due to its relatively non-invasive nature, teeth whitening was largely regarded as "ethical." But according to the literature, teeth whitening is frequently used as a marketing strategy to persuade people to undergo more invasive cosmetic dentistry operations (27,29).

The increased commercialization of the dental industry, which is increasing demand for cosmetic dental operations, has raised ethical problems (13,21). The idea of "professional" duty and obligation has once again pushed informed consent for cosmetic dentistry to the forefront. There was a worry that dentists were misrepresenting their credentials as "aesthetic dentists" by utilizing unrecognized certificates and inflating their skills (18-20). Since "cosmetic dentistry" is not a recognized specialty, there are significant loopholes in the way "cosmetic dentists" are currently governed.

For cosmetic dentistry, standards and rules must be created in order to register practitioners, their credentials, and their talents. As a result, patient safety will increase and patients' knowledge will be improved. This strategy is in line with the Department of Health's examination of cosmetic treatments, which stressed the necessity for proper professional standards and quality assurance (9).

Concerns about patient safety are raised by the rising commercialization of aesthetic dentistry as described in the literature due to the psychological hazards to susceptible groups and the iatrogenic harm produced by dental operations that may not be entirely essential (17). Those with body dysmorphic disorder are particularly vulnerable groups to worry about because they are nine times more likely to get their teeth whitened and six times more likely to get braces (30).

Unfortunately, persons who have body dysmorphic disorder are also more prone to have unreal expectations for cosmetic treatments, which leads to post-operative unhappiness (30). This raises questions regarding informed consent once more and whether dental professionals have sufficiently assessed whether these disadvantaged populations have the necessary capacity to fairly consider the advantages and disadvantages of specific aesthetic dental operations.

A preoperative screening questionnaire may be beneficial for vulnerable individuals who have anxiety, sadness, and body area dissatisfaction, according to the literature (33). To strengthen the current governance structure and create suitable evidence-based recommendations for dental professionals, additional study is necessary to understand how to appropriately get informed consent for cosmetic operations.

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By increasing patient satisfaction and, ultimately, service quality, the framework for getting informed consent can address some ethical conundrums while also having the potential to decrease patient complaints and legal action (17,18). The research outlines patients' growing needs to have invasive aesthetic operations performed in order to improve their appearance in addition to maintaining their teeth. Therefore, the dental staff will undoubtedly face unique issues as a result of having substantially restored teeth in a population that is aging, becoming more demanding, and suffering from many co-morbidities (34). The iatrogenic harm brought on by cosmetic dental operations was primarily discussed in relation to biological effects, dental law, and ethical considerations. The degree of invasiveness of cosmetic dental operations was correlated with a spectrum of acceptance.

The unregulated growth of cosmetic dentistry is anticipated to result in an increase in dentists offering this service, a staff exodus from the NHS, and access issues. Additionally, there can be increased pressure on services to perform corrective work as a result of cosmetic therapy. In fact, Keogh (2013) recommended that insurance products be created to safeguard consumers and the public purse against the failure of cosmetic treatments. Dental professional organizations must provide guidelines for marketing as well as standards of care for cosmetic dentistry.

The rising availability and use of cosmetic dentistry could alter social perceptions of what constitutes a "acceptable" grin. Because cosmetic operations are so expensive, people from lower socioeconomic backgrounds may feel excluded in the commercial culture where they are becoming more and more acceptable.

There were certain restrictions because of the nature of scoping reviews, despite the fact that our findings highlighted a number of problems with patient safety, workforce planning and training, and equity of dental access that have consequences for dental policy and practice. The results of this scoping review point to the need for empirical research on the effects of increased cosmetic dentistry on patient autonomy, patient safety, the provision of complex care for an aging population, the training requirements for the dental workforce, equity of dental access, and perceptions of dental need in future studies in this field. DPH practitioners will be able to promote evidence-based policy decisions to correctly orient services, plan for an adequately trained work force, and establish governance mechanisms to improve the quality of services if some of the research gaps identified in this study are filled.

CONCLUSION

Our statistics highlight specific difficulties encountered by DPH practitioners and dentistry professionals to deliver superior services in an increasingly commercialized environment environment. Obtaining

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informed consent for cosmetic operations, especially from vulnerable people, was a major topic of concern groups. The DPH prioritized workforce planning and education. that was brought up after reading this review. The in increasing needs of a consumer-driven, older population high aesthetic standards present difficulties for the dentistry professional organizations to properly teach dental professionals and create a workforce that is suitable for society. The majority of the conclusions in this review are founded on scholarly discussions Additional empirical study is needed to strengthen evidence-based policy the current systems of government, properly prepare the workforce, and focus services accordingly to satisfy the patients' evolving needs.

REFERENCES

1. Downer, M.C., Gelbier, S. and Gibbons, D.E. (1994): Introduction to Dental Public Health. In, C, Pine, C. and R, Harris, R. eds. 2007, Community Oral Health. Surrey: Quintessence. EU Cosmetics Regulation 1223/2009

2. General Dental Council, GDC (2014a): Pendlebury Lecture 2014. London: GDC. https://www.gdc-uk.org/newsand-publications/viewfromthechair/documents/pendlebury%20 lecture-illiam%20moyes-june2014-final.pdf

3. Department of Health, DH (2009): Adult Dental Health Survey. London: DH. Dickerson, W.G. (1997): Integrating cosmetic dentistry into a busy practice. Dental Economics - oral hygiene 87, 30-32, 34-36.

4. Theobald, A.H., Wong, B.K.J., Quick, A.N. and Thomson, W.M. (2006): The impact of the popular media on cosmetic dentistry. New Zealand Dental Journal, 102, 58-63.

5. Roberts, D.H. (1970): The relationship between age and the failure rate of bridge prostheses. British Dental Journal, 128, 175-177.

6. Saunders, W.P. and Saunders, E.M. (1998): Prevalence of periradicular periodontitis associated with crowned teeth in an adult Scottish subpopulation. British Dental Journal 185, 137-140.

7. King, J., (2002): Rights and responsibilities in dentistry. In, Lambden, P. (ed), Dental Law and Ethics. Oxford: Radcliffe Medical, pp13-20.

8. De Roubaix, J.A.M., (2011): Beneficence, non-maleficence, distributive justice and respect for patient autonomy – reconcilable ends in aesthetic surgery? International Journal of Surgical Reconstruction 64, 11-16

ISSN PRINT 2319 1775 Online 2320 7876

Research paper UGC CARE Listed (Group -I) Journal Volume 11,Iss 6, Sep 2022

9. Keogh, B. (2013): Review of the regulation of cosmetic interventions. London: Department of Health.

10. Colquhoun, H.L., Levac, D., O'Brien, K.K., Straus, S., Tricco, A. C., Perrier, L., Kastner, M. and Moher, D. (2014): Scoping reviews: time for clarity in definition, methods, and reporting. Journal of Clinical Epidemiology 67, 1291-1294.

11. Ahmad, I. (2010): Risk management in clinical practice. Part 5. Ethical considerations for dental enhancement procedures. British Dental Journal 209, 207-214.

12. Kelleher, M.G. (2010): The 'Daughter Test' in aesthetic ('esthetic') or cosmetic dentistry. Dental Update 37, 5-11.

13. Simonsen, R.J. (2007): Commerce versus Care: troubling trends in the ethics of esthetic dentistry. Dental Clinics of North America 51, 281-287.

14. Christensen, G.J. (1994): How ethical are esthetic dental procedures? Journal of the American Dental Association 125, 1498-1500, 1502.

15. Mathewson, H. and Rudkn, D. (2008): The GDC - Lifting the lid. Part 5: Illegal practice. British Dental Journal 205, 153-155.

16. Maglad, A.S., Wassell, R.W., Barclay, S.C. and Walls, A.W.G. (2010): Risk management in clinical practice. Part 3. Crowns and bridges. British Dental Journal 209, 115-122.

17. Kelleher, M.G.D., Djemal, S. and Lewis, N. (2012a): Ethical marketing in 'aesthetic' ('esthetic') or 'cosmetic dentistry' part 1. Dental Update, 39, 313-326.

18. Kelleher, M.G.D., Djemal, S. and Lewis, N. (2012b): Ethical marketing in 'Aesthetic' ('Esthetic') or 'Cosmetic Dentistry' part 2. Dental Update 39, 390-406.

19. Maihofer, M.G. (2009): Cosmetic dentistry is not a recognized specialty. Journal of the Michigan Dental Association 91, 18.

20. Rossi, M.S. (2006): The cosmetics of dentistry. Who will be left smiling? New York State Dental Journal 72, 6-7.

21. Mulcahy, D.F. (2000. Cosmetic dentistry: is it really health care? Journal of the Canadian Dental Association 66, 231-232.

22. Glick, K. (2000): Cosmetic dentistry is still dentistry. Journal of the Canadian Dental Association 66, 88-89.

ISSN PRINT 2319 1775 Online 2320 7876

Research paper UGC CARE Listed (Group -I) Journal Volume 11,Iss 6, Sep 2022

23. Levin, R.P. (2007a): Six ways to increase cosmetic dentistry in your practice. Compendium of Continuing Education in Dentistry 28, 340-341.

24. Levin, R.P. (2007b): Want to increase cosmetic dentistry? Targeted internal marketing is your secret weapon. Compendium of Continuing Education in Dentistry 28, 674-675.

25. Morley, J. (1994): Integrating cosmetic dentistry into your practice. Dentistry Today 13, 64-65.

26. Austin, C.J. (1994): Marketing strategies for the cosmetic practice. Current Opinion in Cosmetic Dentistry 1994, 123-133.

27. Blaes J.A. (1998): Cosmetic dentistry 99. Dental Economics -oral hygiene 88, 17-18.

28. Dickerson, W.G. (1997): Integrating cosmetic dentistry into a busy practice. Dental Economics - oral hygiene 87, 30-32, 34-36.

29. Madow, R.H. (1997): Gateways to patient acceptance of cosmetic procedures. Current Opinion in Cosmetic Dentistry 4, 29-34.

30.De Jongh, A., Oosterink, F.M., Van Rood, Y.R. and Aartman, I.H. (2008): Preoccupation with one's appearance: a motivating factor for cosmetic dental treatment? British Dental Journal 204, 691-695.

31. Dowling, N.A., Honigman, R. J. and Jackson, A.C. (2010): The male cosmetic surgery patient: A matched sample gender analysis of elective cosmetic surgery and cosmetic dentistry patients. Annals of Plastic Surgery 64, 726-731.

32. Honigman, R.J., Jackson, A.C. and Dowling, N.A. (2011): The PreFACE: A preoperative psychosocial screen for elective facial cosmetic surgery and cosmetic dentistry patients. Annals of Plastic Surgery 66, 16-23.

33. Philips, E. (1998): Contemporary cosmetic dentistry. Where do we go from here? Oral Health 8, 21-22, 25-26, 28.

34. Lewis, K. (2011): Dento-legal risks associated with treating the older patient. Faculty Dental Journal of the Royal College of Surgeons of England, 2, 123-126