

The Conflict Between Patient Autonomy and Oral Health in Dentistry

Ph.D. thesis
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1. Introduction

Bioethics is a discipline that bridges biological sciences (primarily medicine) and applied philosophy. Among the theoretical frameworks utilized in bioethics, principlism prevails with the *prima facie* principles articulated by Beauchamp and Childress: respect for patient autonomy, beneficence, nonmaleficence and justice. The authors suggest balancing these principles, and other scholars assert a relationship between them, for example by not excluding patient's autonomous choices when deciding what benefits them the most. Despite the relatively high consensus in the validity of these principles, employing them in everyday practice may yield to various and often conflicting resolutions to the same bioethical challenge. In dental ethics, Ozar et al. proposed the Central Practive Values. This theory employs a hierarchy, in which the patient's health takes precedence over the patient's autonomy, both of which are ranked above esthetics, a consideration particularly salient in dentistry. Although a hierarchy offers a straightforward resolution of ethical challenges, it once again overlooks real-world practice, where esthetic interventions are common and patient request often plays a significant role when deciding to extract a tooth.

To mitigate the discrepancy between ethical philosophy and medical practice, bioethics has increasingly turned to empirical data informing theory, a well-established approach in social sciences. One model describes the role empirical bioethics in mapping (through literature), framing (through exploring stakeholder views) and shaping (based on the newly established knowledge).

2. Objectives

The objective of this thesis was to explore the ethical dilemma between patient autonomy and oral health in dentistry. With this

aim in mind, the thesis sought to answer the following questions: What types of cases, judgments, and underlying ethical principles are present in the literature addressing the conflict between patient autonomy and oral health in dentistry? How and through the application of which principles dentists act in cases where a patient's request contradicts medical necessity? How and through the application of which principles patients make decisions when their choices do not align with medical necessity?

3. Methods

3.1. Review of relevant literature

We reviewed literature via a scoping review, a method suitable for identifying and clarifying gaps and exploring gaps. The search was conducted on the 28th of May 2023 with the search terms *dent* AND ethic* AND autonomy AND health* in PubMed, Web of Science and Scopus. We set the databases to show published journal articles written in English. Our search results are accessible in our public repository¹. Duplicates were removed and the search results were screened by two researchers. We removed articles where long-term access was not guaranteed with a DOI, which did not discuss intervention in the oral cavity, where the decision-making of those undergoing the intervention was not included, or where those undergoing the intervention were legally constrained in decision-making (e.g., minors). The two researchers triangulated their screening results and resolved disagreements with social moderation.

Subsequently, a hierarchical coding scheme was substantiated. The parent and grandparent codes were *Case*, *Judgement* and *Principle*, which also guided data segmentation. Separate text

¹ PudMed search results: <https://osf.io/ytksd>

Web of Science search results: <https://osf.io/w5vd9>

Scopus search results: <https://osf.io/qjfp7>

files were created for each of the three codes with article segments representative of these codes. The researchers conducted free inductive coding with the Interface for the Reproducible Open Coding Kit², to develop child codes. The researchers triangulated their results and drafted a tentative codebook. This codebook was tested, and a final codebook was established. Subsequently, the dataset was coded by the author of this thesis. The coded data were synthesized with thematic analysis, for which the author of this thesis reviewed the data to capture code patterns, create theme drafts, and refine them after further review. The researchers validated the final themes with social moderation.

3.2. Narratives of dentists and patients

To explore various narratives of moral reality, we adopted a constructivist paradigm, along with the Interpretative Phenomenological Approach. The latter could be summarized as the researcher's active involvement in interpreting participants' meaning-making process, in which the researcher's personality is present, yet shaped by the participants.

Our sample consisted of dentists and patients living in Hungary, constructed with non-proportional quota sampling. Quotas for the dentist subsample were sex and leadership experience, involving leadership at university clinics, private clinics and professional organizations. On the other hand, quotas for the patient subsample were sex and age. We included sex as a quota based on the theory of Gilligan asserting a difference between "masculine" and "feminine" perspectives in resolving ethical challenges. Age was included, as prior literature suggested age to be a significant factor in the perception of orofacial esthetics. We included dentists with a completed accredited specialty training and a minimum of 10 years professional experience hat

² <https://i.rock.science/>

included work in both the private and public sector. Patients were eligible for inclusion if they had refused a treatment plan provided by the dentist or requested an intervention without a corresponding medical diagnosis. Participants were excluded if they did not meet the inclusion criteria, with patients being excluded if they were legally impaired (e.g., minors), or if they possessed qualifications related to dentistry. Dentists were recruited via publicly available contact information, and we used snowball sampling to include further participants. Data were collected via a self-developed sociodemographic survey and a semi-structured interview guide encompassing the following topics: the Central Practice Values of dentistry, a case with a patient requesting extraction of their teeth as an alternative to conservative treatment, esthetic dentistry, patient’s trust in dentists. The interview recordings were transcribed verbatim and anonymized.

Two researchers developed codes with a guided-inductive approach, in which the initial codebook consisted of the Central Practice Values and an *Other* code. The researchers individually coded segments of the data with the Interface for Reproducible Open Coding Kit (iROCK)³ and were instructed to modify the codebook as necessary. The researchers triangulated their coding scheme to create a common tentative codebook. Following subsequent rounds of test coding and triangulation, a final codebook was established. A simplified, non-exhaustive version of the codebook is presented in Table 1.

Code name and label	Definition	Example
Well-being [[Wellbeing]]	Physical, mental or social well-being	A treatment outcome boosting the patient’s confidence

³ <https://i.rock.science>

Medical indication [[Indication]]	Appropriate and pain-free function of the oral cavity and surrounding tissues	Extracting a carious wisdom tooth that could potentially cause further issues
Patient autonomy [[PatAut]]	Treatment decisions made based on patient's own beliefs, goals, and values;	Dentist allowing the patient to choose an esthetic intervention
Esthetics [[Esthetics]]	Esthetic standards of individuals or the wider community	Patient requesting replacing amalgam fillings due to their color
Informing [[Inform]]	Decision made based on access to information	Patient rejecting an intervention based on possible risks outlined by the dentists
Patient comfort [[Comfort]]	Minimizing the time spent at the dental office, fear or inconvenience	Patient experiencing emotional distress caused by an intervention
Needs [[Needs]]	Morality of an intervention differs on the specific circumstance	Dentist fulfilling esthetic requests for a bride's wedding
Personal experience [[Exp]]	Decisions informed by prior events	Patient expressing greater trust in younger dentists after

		experiencing issues with a filling placed by an older dentist
Minimally invasive [[Minimal]]	Opting for the alternative that involves less damage	Dentist prioritizing preventive interventions

Table 1. Simplified codebook containing code names, labels, definitions, examples.

The coded dataset was analyzed via Epistemic Network Analysis (ENA). In the initial phase, we tabularized the dataset with the Reproducible Open Coding Kit {rock} R package⁴. This table contained each sentence from the data, categorical values of attributes (e.g., sociodemographic data of the speaker) and a binary indicator (0 or 1) denoting the presence or absence of the code in the sentence. Subsequently, the ENA software⁵ calculated the pairwise co-occurrence (within the span of two consecutive sentences) of codes for each participant and for the subsamples. In this matrix, vectors represented the possible code co-occurrences, and vectors were divided by their own length to indicate the relative frequency of each code co-occurrence. Furthermore, the high-dimensional space was reduced to a two-dimensional space. ENA created two types of visualization, epistemic networks of the subsamples indicating the relative frequency of code co-occurrences, and a projection space displaying the entire dataset. The projection space demonstrated relationships among subsamples, individual participants, and typical patterns of code co-occurrence, along with a subtracted network that depicts which code co-occurrences were more frequent in one subsample compared to the other.

⁴ <https://rock.science>

⁵ <https://www.epistemicnetwork.org>

4. Results

4.1 Review of relevant literature

4.1.1. Attributes of the dataset

We included 11 publications after screening. The included sources were published between 1988 and 2022, of which 8 publications appeared in dental journals, 3 publications in bioethics journals, one publication in an agricultural journal and one in a geriatric nursing journal.

4.1.2. Themes

Themes within Case

Autonomous requests for extraction referred to patients asking for tooth extraction even though the dentist does not believe that to be the medically indicated solution. Specific cases involve extraction as a simple alternative for a more comprehensive treatment plan, replacing teeth with a more esthetic restoration, cultural reasons (e.g., ritual tooth extractions), and mental disorders, such as body integrity identity disorder.

Health promotion considered cases where patients undergo primary dental prevention, such as government imposing artificial water fluoridation and relatives of geriatric patients requesting coercion to carry out oral hygiene routines.

Themes within Judgement

Reviewing options meant both options, granting and refusing the patient's request was evaluated, however no definitive decision was achieved. This theme occurred for instance in empirical results, where both options gained substantial support, with the authors reporting the results in a neutral tone.

First, do no harm argues against harmful patient requests. The articles presenting this theme advised for elaborating the possible negative outcomes of a requested treatment to the patient, or postponing treatment, allowing the possibility for the patient to reconsider.

Themes within Principle

Shared decision-making recognized beneficence as the obligation to preserve the dentition and patient autonomy as the patient's involvement in this pursuit. Thus, while it recognized both principles, but ranked beneficence over patient autonomy.

Limits for autonomy employed a less paternalistic approach, as it allowed granting patient's requests with consideration, such as the invasiveness, reversibility, and possible risks of the procedure.

Themes across parent and grandparent codes

Professional ideals over society's ideals referred to cases, where the patient's request adhered to societal standards not shared by the profession, as merely esthetic interventions or ritual tooth extractions. The theme weighed patient autonomy with generally overruling it.

Autonomy in need for prevention encompassed the cases of the theme *Health promotion* with the normative conclusion that patients should not receive preventive care if not requested.

4.2 Narratives of dentists and patients

4.2.1. Attributes of the dataset

The sample consisted of 14 dentists and 10 patients. Eight dentists were male, 6 were female, with a mean age of 48.5 (ranging from 35 to 74). The patient subsample included 4 males, 6 females, with a mean age of 45.5 (ranging from 28 to 78).

4.2.2. Mean epistemic network of dentists

The mean epistemic network of dentists is depicted in Figure 1. The codes with the highest frequency of co-occurrences in the dentist network were *Medical Indication* and *Patient autonomy*. A common code co-occurrence was between *Medical indication* and *Esthetics*, which suggested that dentists preferred performing interventions that are beneficent for the patient's oral health, recognizing that compromise in physical function is

often accompanied by impairment in esthetics, which is often a larger concern for the patient. This notion is present in the quote, “*Esthetics arise, since teeth move away in a fan-like position [after tooth extraction, the teeth may occupy the edentulous space, creating gaps, metaphorically as a handheld fan is unfolded] and the patient won’t be able to apply [masticatory] forces, can’t use them normally and can’t eat.*” The other especially common code co-occurrence was between *Patient autonomy* and *Informing*, indicating dentists willing to provide information for patients, thereby transferring responsibility to them. This thought emerges in the statement, “*I don’t think cosmetic dentistry is the real problem of dentistry, but if the patient wants that, they know the consequences, the advantages, the disadvantages, in that case we may carry it out.*”

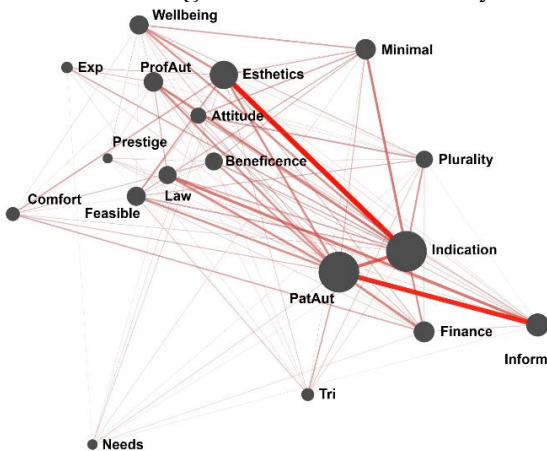


Figure 1. Mean epistemic network of the dentist subsample. Codes are represented by the nodes of the network (black circles). The size of each node reflects the relative frequency of the code’s co-occurrences with other codes. The relative frequency of co-occurrence between specific pairs of codes is indicated by the thickness and saturation of the edges (lines) between nodes. (Own figure.)

4.2.3. Mean epistemic network of patients

The mean epistemic network of patients is depicted in Figure 2. The most significant nodes in the patient network included *Esthetics*, *Comfort*, *Patient autonomy and Informing*. A strong connection occurred between *Medical indication* and *Comfort*, indicating the decision associated with discomfort, as in the remark explaining the refusal of removing an impacted wisdom tooth, “*The upside would be obviously that my teeth are crowded, that I know (...) I don’t have any pain.*” The likewise significant connection between *Comfort* and *Personal experience* signified decision-making related to experience with discomfort, as in the quote, “*I am scared, I’ve had so much toothache [in the past], the whole thing has hurt so much.*” The co-occurrence between *Esthetics* and *Needs* implied different situations warranting different esthetic standards, as explained by a patient if they desire esthetic interventions, “*I am very much satisfied [esthetically] after getting tartar removed, but if let’s say at a very-very old age, perhaps my teeth are like ugly yellow.*” The final strong co-occurrence was between *Esthetics* and *Well-being*, when patients linked their appearance to their overall health, including psychosocial health. For example, a patient described their experience with a new prosthesis as “*it gave me an extra present for my life, it is beautiful*”.

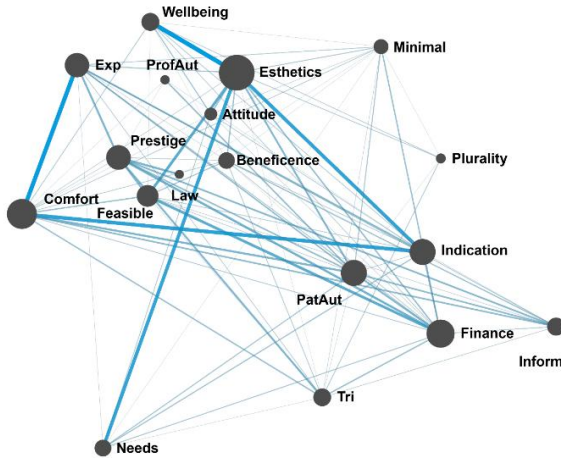


Figure 2. Mean epistemic network of the dentist subsample. Codes are represented by the nodes of the network (black circles). The size of each node reflects the relative frequency of the code's co-occurrences with other codes. The relative frequency of co-occurrence between specific pairs of codes is indicated by the thickness and saturation of the edges (lines) between nodes. (Own figure.)

4.2.4. Projection space of the entire dataset

The projection space of the dataset is depicted in Figure 3. The locations of the codes and networks confirmed that the most typical code co-occurrences in the dentist narratives included the connections of *Patient autonomy*, *Medical indication* and *Informing*. Conversely, the most typical code co-occurrences in the patient narratives were the connections of *Needs*, *Comfort*, *Prestige*, *Personal Experience*, and *Well-being*. Furthermore, the projection space aided in the identification of code co-occurrences which were not strong connections in the networks, however characterized those narratives, as the co-occurrence of *Medical indication* and *Minimally Invasive* in the dentist network. This connection implied dentists favoring treatments that cause less harm, while they may be sufficient. When

discussing the case of a patient opting for the extraction of their teeth instead of comprehensive treatment, a dentist argued, “*in the first steps let’s just look at the most necessary interventions, carry them out, see how satisfied the patient is.*”

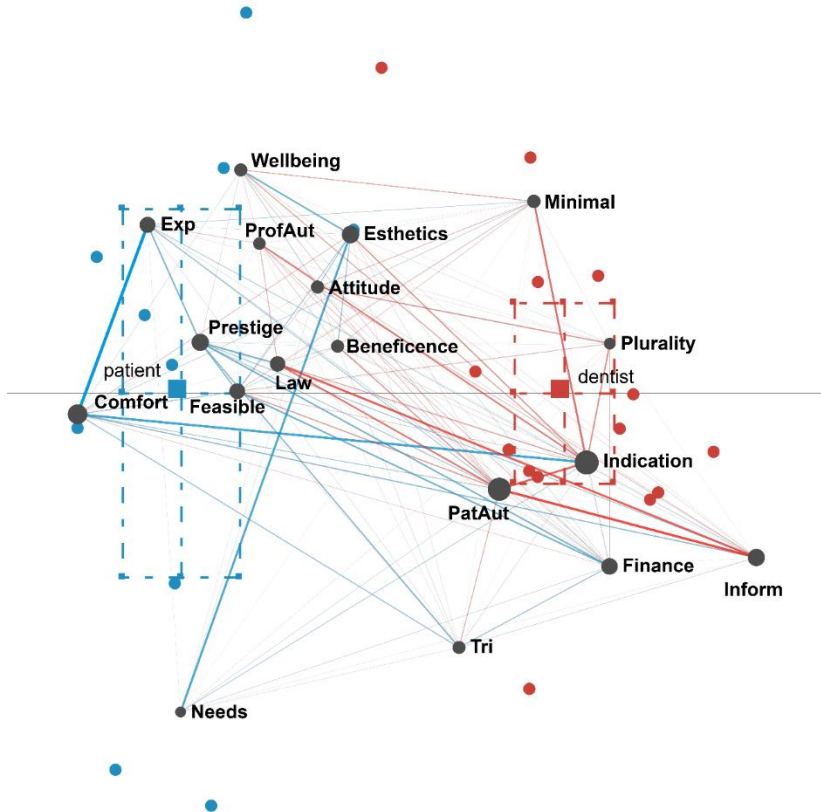


Figure 3. Epistemic Network Analysis projection space displaying individual network locations for each participant (colored circles) in the dentist (red) and patient (blue) subsamples, as well as mean epistemic network locations for both subsamples (colored squares). Dashed lines around the means denote the 95% confidence intervals on each dimension. Subtracted graph of mean patient and dentist networks (center); black circles represent codes, red edges (lines) and blue edges

signify higher frequency of code co-occurrences in dentist and patient narratives, respectively. (Own figure.)

5. Conclusions

Modern bioethics most commonly operates using ethical principles with arguments concerning the morally right application of these principles, especially when patient autonomy conflicts with the patient's health. In accordance with this phenomenon, this project operationalized bioethical constructs in the context of dentistry to examine interactions among them.

The results of the scoping review suggested that the topic is not well-researched, as we were only able to identify 11 relevant journal articles. Furthermore, as most of these articles were published in dental journals, a bias may exist toward reporting moral stances from the dental profession's perspective. Although patient autonomy was often addressed, it was rather presented in conflict with medical needs rather than a factor shaping it, with medical needs being prioritized.

When assessing dentist and patient narratives, we tested the Central Practice Values and augmented them with novel constructs defining medical decision-making. These constructs (such as comfort and personal experience) were particularly salient in patients' narratives, exhibiting divergence between patients' ideas and general bioethical principles. Conversely, dentists' narratives tended to more closely align with well-established bioethical principles, yet the relationship between these principles also revealed potential to inform bioethics, as via the strong connection between *Medical indication* and *Esthetics*. This perspective challenges a previous theory published by the author of the thesis at the beginning of his PhD studies, connecting esthetics with patient autonomy and describing it as opposed to medical indication. This finding

therefore confirmed the need for empirical research in the predominantly theoretical field of bioethics,

On the whole, the thesis contributed to the study of dental ethics by demonstrating discrepancies among prevailing ethical theory, journal articles, dentist perspectives and patient perspectives. Consequently, the development of a single, universally adaptable solution to resolve the ethical dilemma between patient autonomy and oral health appears unlikely. If further exploration were to be extended into the normative domain, it would require a paradigm shift away from the current constructivist approach to exclude what is morally unacceptable or suboptimal. In addition, continued research could integrate the assessed aspects of oral health and medical decision-making in a more complex context. For example, the One Health approach, which links individual health, public health, and ecosystem health, and likewise introduces its own ethical challenges, particularly in relation to patient autonomy.

6. Bibliography of the candidate's publications

Publications related to the thesis:

Kovács S. Suggestion for Determining Treatment Strategies in Dental Ethics. *Journal of Bioethical Inquiry*. 2023 Nov 30; 21(2):373–379.

Kovács SD. Patient autonomy in the era of the sustainability crisis. *Med Health Care and Philos*. 2024 Sep 1;27(3):399–405.

Kovács SD, Irawan AS, Zörgő S, Kovács J. The conflict between oral health and patient autonomy in dentistry: a scoping review. *BMC Medical Ethics*. 2024 Dec 21;25(1):150.

Kovács SD, Jeney A, Zörgő S. Mapping the Conflict Between Oral Health and Patient Autonomy in Dentistry: A Unified Qualitative-Quantitative Study. *Int Dent J*. 2026 Feb 1;76(1):104012.

Publications not related to the thesis:

Kovács SD, Mulholland K, Condon L, Koncz Z, Zörgő S. Interaction of Diagnostic Criteria in the Narratives of Patients with Borderline Personality Disorder. In: Arastoopour Irgens G, Knight S, editors. *Advances in Quantitative Ethnography*. Cham: Springer Nature Switzerland; 2023. p. 316–29.

Kovács SD. A zöld egészségügy kihívásai. *Orvosi Könyvtárak*. 2025 Mar 22;65(1):25–8.

Irawan AS, Döbrössy BM, Biresaw MS, Muharram AP, Kovács SD, Girasek E. Exploring characteristics and common features of digital health in pediatric care in developing countries: a systematic review. *Front Digit Health [Internet]*. 2025 May 7 [cited 2025 Jul 3];7. Available from:

<https://www.frontiersin.org/journals/digital-health/articles/10.3389/fdgth.2025.1533788/full>

Zörgő S, Peters GJ, Jeney A, Kovács SD, Crutzen R. A Multimodal Analysis of Online Information Foraging in Health-Related Topics Based on Stimulus-Engagement Alignment: Observational Feasibility Study. *Journal of Medical Internet Research*. 2025 Jul 14;27(1):e64901.

ΣIF: 21.2