

The Application of Artificial Intelligence in Enhancing Legal Protection for Patients in Dental Practice: A Positivist Perspective

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ABSTRACT: Legal protection for patients in dental practice is becoming increasingly important with advancements in technology, including artificial intelligence. Positivism provides a framework for analyzing this protection, as outlined in Article 276 of Law Number 17 of 2023 concerning Health, which guarantees patients' right to complete information regarding their health condition and the medical procedures to be performed. However, challenges in implementing regulations often arise, particularly regarding the lack of clarity in the information provided by dentists to patients. The purpose of this study is to analyze the application of artificial intelligence in enhancing legal protection for patients in dental practice, as well as to explore legal protections for patients in dental practice from a positivist perspective. The research method used is normative juridical, using a statutory approach and an analytical approach. The research findings indicate that the application of AI in dentistry enhances legal protection for patients by improving diagnostic accuracy and reducing medical errors. AI also supports better data management and decision-making while increasing transparency and accountability. From a positivist perspective, the emphasis on clear regulations is crucial for protecting patients' rights, ensuring that AI not only improves service quality but also strengthens legal protection. The application of artificial intelligence in dental practice can enhance legal protection for patients by improving service quality and reducing the risk of medical errors. From a positivist perspective, the use of this technology aligns with legal principles aimed at protecting patients' rights and ensuring justice in medical practices.

Keywords: positivism law, patient protection, dental practice, artificial intelligence

INTRODUCTION

Health is one of the basic human needs, The maintenance of health is a fundamental human necessity, and as such, it is a right enshrined in law for all citizens. It is widely acknowledged that a healthy population is a prerequisite for economic prosperity. The right to health is frequently conceived as merely encompassing access to medical services or treatment. However, this represents a narrow interpretation of the right to health, which is in fact a far more expansive concept (Tampubolon, n.d.). The concept of health is not limited to the mere absence of disease; rather, it encompasses a multitude of interrelated aspects, including the prevention, promotion and rehabilitation of health. Furthermore, a person's health is influenced by a multitude of factors, including education, protection from infectious diseases, a healthy physical and social environment, access to clean water, balanced nutrition and decent and healthy housing (Kartono, 2003).

The evolution of health law is inextricably linked with advancements in health services, underscoring the imperative to maintain equilibrium in the pursuit of enhanced health outcomes. Consequently, health law evolves in a normative manner, with the establishment of specific regulations (*Lex Specialis*) that provide exceptions or deviations from general law (*Lex Generale*) (Indar, 2017). Article 2 of Law No. 17 of 2023 on Health stipulates that health services must be based on various principles, including humanity, balance, benefits, science, equitable distribution, ethics, professionalism, and protection and safety (Indonesia, n.d.). Furthermore, it establishes the respect for rights and obligations, justice without discrimination, moral considerations and religious values, participation, public interest, coordination, legal awareness, state sovereignty, environmental preservation, cultural wisdom, and legal certainty. In the context of the relationship between medical personnel and patients, the foundation of this relationship is the patient's consent prior to the commencement of medical action.

The relationship between a doctor or dentist and a patient is not always characterised by smooth interactions. On occasion, difficulties emerge in the healthcare process. One common issue that arises is patient discontent with the services provided. This dissatisfaction may be caused by a number of factors, including the perception that the disease has not been effectively treated, the emergence of a disability, or even the patient's demise. This can result in the perception that the doctor or dentist has committed a medical error, which may in turn give rise to litigation and potentially a medical dispute. In the context of medical practice, the potential for medical accidents is an inherent reality. Medical accidents may be attributed to instances of malpractice or medical risks. Malpractice can be defined as errors or negligence in the execution of medical procedures that deviate from the standards of care that would be expected in similar circumstances (Dananjaya, Dewi, & Suryani, 2019).

Article 276 of Law No. 17 Year 2023 on Health affirms the right of patients to obtain complete information regarding their health condition as well as the medical procedures to be performed. This is very important, especially in dental practice, where clear and transparent information can help patients make informed decisions regarding their treatment. However, in practice, there are still obstacles in the implementation of this regulation. One of the main obstacles is the lack of clarity and accuracy of information conveyed by dentists to patients. For example, there are times when information is conveyed in complex medical terms, making it difficult for patients to understand (Riyanto & Ratnawati, 2024).

Legal protection is a guarantee given by the state to every legal subject, in accordance with applicable regulations. This guarantee is designed to ensure the administration of justice and may be either preventive (i.e. aimed at preventing the occurrence of a crime) or repressive (i.e. aimed at punishing those who have committed a crime). This protection may be enshrined in written or unwritten legal rules and is subject to regulation in order to ensure effective law enforcement (Firdaus, 2017). The topic of legal protection in dental practice is of significant importance, as it pertains to the rights of patients and the obligations of dentists in providing services that adhere to professional standards. In this context, the perspective of legal positivism emphasises the importance of written rules and the implementation of provisions established by law, without reference to moral aspects or substantive justice that are not listed in the law (Sudiyana & Suswoto, 2018).

From the perspective of positivism, the protection of patients can only be guaranteed if these regulations are strictly adhered to and violations of them can be subject to formal legal sanctions. The tenets of legal positivism eschew the tenures of unwritten law, instead prioritising legal certainty predicated upon extant norms. However, in practice, there are a number of challenges that must be overcome in order to ensure the legal protection of

patients in the field of dentistry. Proving cases of malpractice or negligence in a legal context is often challenging, and patients frequently lack access to comprehensive medical information (Saragih, Arifin, Nalom, & Azzahra, 2024). The positivist perspective offers an approach that focuses on enforcing the law through clear regulations. For example, dentists are obliged to obtain informed consent from patients before performing medical actions. Furthermore, there are institutions that are authorised to enforce discipline and laws related to medical negligence. Furthermore, the positivist approach can be employed to examine potential avenues for enhancing the legal framework to more effectively safeguard patients in the context of dental practice. For instance, this could be achieved by enhancing the rigour of regulatory frameworks pertaining to medical service standards, or by reinforcing the efficacy of legal instruments that can be invoked by aggrieved patients.

Based on the above background, the problems to be discussed in this study are how the application of artificial intelligence in improving legal protection for patients in dental practice? Furthermore, what are the avenues for exploring legal protection for patients in dental practice from a positivist perspective?

Previous studies have explored the intersection of artificial intelligence (AI) and healthcare, emphasizing its potential to improve diagnostic accuracy and reduce medical errors. Research by Fradyacsyah et al. (2024) and Santoso et al. (2020) highlighted AI's role in optimizing medical records and providing early diagnosis, particularly in dentistry. However, these studies primarily focused on technological applications without integrating legal perspectives or addressing the specific challenges in dental practices regarding patient protection. Furthermore, legal studies, such as those by Sudiyana and Suswoto (2018), have underscored the need for clear regulations in healthcare but have not adequately explored how AI can align with positivist legal principles to enhance patient safety and rights.

The rapid development of AI in healthcare presents both opportunities and challenges, particularly in the field of dentistry. The absence of comprehensive legal frameworks to regulate AI's implementation in dental practices creates significant risks for patients, including the potential for data misuse, diagnostic inaccuracies, and unclear informed consent processes. Addressing these risks is urgent to ensure AI is used ethically and effectively, safeguarding patient rights while improving healthcare outcomes.

While existing studies have explored AI's technical benefits and legal protection for patients, there is a lack of research that integrates these dimensions, particularly from a positivist legal perspective. The current gap lies in the absence of frameworks that analyze how AI can enhance legal protection in dentistry, focusing on both technical capabilities and adherence to legal norms.

This study uniquely examines the application of AI in dental practices through the lens of legal positivism, bridging the gap between technological advancements and legal protections. It introduces a framework for aligning AI's capabilities, such as diagnostic accuracy and data management, with clear legal standards, emphasizing informed consent and transparency in patient care.

The primary objective of this study is to analyze the role of AI in improving legal protection for patients in dental practice, focusing on its alignment with positivist legal principles. The study also seeks to identify the challenges and propose solutions for integrating AI into dental practices while ensuring adherence to legal and ethical standards.

The findings of this research will benefit policymakers, healthcare providers, and technology developers by offering a comprehensive framework for AI implementation in dentistry that prioritizes patient safety and rights. It will also provide practical

recommendations for improving legal protections, enhancing patient trust, and ensuring compliance with existing regulations.

The study has significant implications for healthcare policy and practice, offering a pathway to integrate AI into dental practices ethically and legally. By aligning AI applications with positivist principles, the research contributes to creating a more transparent, accountable, and patient-centered healthcare system. It also lays the groundwork for future regulations that ensure the equitable and ethical use of AI in dentistry and beyond.

RESEARCH METHODOLOGY

The research method used in this study is normative juridical. The normative legal research method employs a normative juridical approach. The normative juridical approach refers to the applicable laws and regulations (Sunggono, n.d.). This normative research is a systematic investigation of the legal system, with the primary objective of analysing the implementation of artificial intelligence in enhancing legal safeguards for patients undergoing dental procedures and exploring the legal protection for patients in dental practice from a positivist perspective.

The statutory approach method is to review all laws and regulations related to the issue under discussion. This approach prioritises the utilisation of legislation and regulations as a means of elucidating the intricacies of a given problem (Benuf, Mahmudah, & Priyono, 2019). The sources of legal research can be classified into two principal categories: primary legal materials and secondary legal materials. Primary legal materials are defined as authoritative and legally binding sources of information, including legislation, official records, minutes of regulations, and judicial decisions (Diantha, 2016). The primary legal material employed is Law Number 17 of 2023 concerning Health.

RESULT AND DISCUSSION

The Potential Of Artificial Intelligence (AI) To Enhance Legal Protection For Patients In The Dentistry Practice

Health is an obligation that must be guaranteed by the state, This entails taking measures to ensure the health of the entire community, with the aim of achieving an optimal level of health for all. The Indonesian legal system contains a number of provisions that regulate matters pertaining to the health and protection of the community. The right to health is enshrined in Article 28H of the 1945 Constitution of the Republic of Indonesia. The article in question asserts that every individual is entitled to a life of prosperity, encompassing both physical and mental wellbeing. It further stipulates the right to reside in a decent dwelling, to live in a clean environment, and to receive appropriate health services. This right entails the obligation of the government to establish conditions that facilitate the ability of every individual to live a healthy life, as well as to provide adequate health service facilities that are accessible to all citizens. This implies that the state must assume an active role in developing a health system that is inclusive and responsive to the needs of the community. Furthermore, the government is obliged to educate the public on their rights and responsibilities in maintaining health, thereby enabling each individual to contribute to the overall health of the community (Ricky, 2009).

The implementation of oral health services encompasses the roles of dentists, dental nurses, and dental technicians, all of whom are health workers. These professionals are bound by the ethical standards that govern the conduct of health workers. The diagnosis of dental diseases is conducted by qualified dentists, who consider both the symptoms experienced by

the patient and the condition of the visible tooth damage. However, individuals frequently address dental health concerns based on their own understanding and experience, such as the use of painkillers. This is due to a lack of education regarding the nature of the diseases they experience. Furthermore, the restricted time and number of medical personnel also contribute to the dearth of counselling activities. To address this issue, a system is required that is capable of diagnosing dental diseases based on clinical data from patients (Nas & Kusnadi, 2019). Expert systems represent a subfield of artificial intelligence that focuses on leveraging human expertise in computers to address complex problems in a systematic manner, similar to the way humans solve problems (Asdar, Saputra, & Ningrum, 2022).

Artificial intelligence (AI) is a relatively new field that allows machines to emulate intelligent human behaviour (Amelia, Barthos, & Sara, 2023). This field of study is concerned with the development of intelligent machines that are capable of performing tasks that would otherwise require human intelligence. Artificial intelligence is a cross-disciplinary field with diverse approaches. However, recent advances in machine learning and deep learning are currently transforming the paradigm in almost every industry sector, including technology and healthcare (Sardi, Adnyasari, & Pinatih, 2023). The implementation of artificial intelligence (AI) in the field of dentistry has the potential to markedly enhance the legal protection afforded to patients. One of the primary benefits of AI is the enhanced accuracy of diagnosis.

AI has the potential to facilitate earlier and more accurate detection of dental issues such as caries and oral diseases, thereby enabling dentists to deliver more prompt and effective treatment (Fradyacsyah, Sholihin, & Reknadi, 2024). To illustrate, the deployment of AI technology capable of analysing X-ray images and providing early diagnosis recommendations can mitigate the risk of human error in the assessment of a patient's condition. This has a direct impact on legal protection, as patients receive more appropriate and adequate treatment in accordance with applicable medical standards. Furthermore, the utilisation of information technology can facilitate the optimisation of medical record management and service provision within healthcare facilities (Santoso, Nuryati, & Pramono, 2020). Furthermore, AI facilitates the more efficient and transparent management of patient data. The utilisation of AI-based systems for the automated management of medical record data facilitates more expedient and precise access for dentists to inform their clinical decision-making processes. Furthermore, it enhances accountability, as each stage of the diagnostic and treatment process can be distinctly identified and documented. Such transparency is of particular importance in a legal context, particularly in instances where patients allege negligence or a lack of communication during their treatment.

One of the important element in legal protection is the provision of appropriate and safe healthcare for patients. In this context, artificial intelligence (AI) has the potential to significantly enhance the accuracy of diagnoses. In comparison to human analysts, AI is capable of analysing data more comprehensively and in greater depth, thereby enabling the identification of patterns that may otherwise be overlooked. This markedly diminishes the likelihood of medical errors, which frequently serve as the foundation for malpractice allegations in the medical field. To illustrate, AI is capable of reading X-rays or CT scans with a greater degree of accuracy, thereby assisting doctors in making more informed decisions. Furthermore, AI not only accelerates the analysis process but also furnishes more exact predictions for more intricate dental treatments. Consequently, the implementation of AI in dental practices offers advantages in terms of efficiency and quality, while also enhancing the safety of healthcare services received by patients. Over time, the integration of AI technology

in the healthcare sector is anticipated to reduce the occurrence of medical errors and enhance patient satisfaction, which in turn can reinforce legal protection for patients (Wahyuni, 2016).

The utilisation of AI can facilitate the informed consent process, whereby medical practitioners elucidate the diagnosis, treatment alternatives and potential hazards to patients. In an era where medical information is becoming increasingly complex, AI can assist doctors in presenting relevant data in a more structured and understandable way to patients. By employing sophisticated data analysis techniques, AI can generate transparent simulations or visualisations of medical procedures, thereby facilitating a more comprehensive understanding of the context and consequences of the decisions at hand for the patient. The provision of informed consent is a crucial element in ensuring that patients possess the requisite knowledge to make well-informed decisions and provide consent. (Suntama, 2017). The utilisation of AI enables medical practitioners to furnish patients with more comprehensive and precise information regarding their condition, thereby facilitating a more lucid comprehension of the potential risks and benefits associated with the proposed treatment. This is crucial in preventing legal disputes arising from the patient's lack of comprehension regarding the procedure. The utilisation of AI in digital medical record management facilitates the safer and more organised storage of patient data (Andhani & Ramalinda, 2024). The implementation of sophisticated security systems, such as data encryption and anomaly detection, provides enhanced assurance of patient confidentiality and privacy when AI is utilised. The encryption technology guarantees that patient information cannot be accessed by unauthorised parties, while the anomaly detection system is capable of identifying and alerting on suspicious activity that may indicate a data breach. The implementation of these features enables healthcare providers to more effectively maintain the integrity and confidentiality of patient information. This is particularly crucial in order to comply with the Personal Data Protection Law (PDP Law), which mandates that all healthcare providers safeguard sensitive patient information and guarantee that patients' privacy rights are upheld. It is anticipated that the implementation of AI in data management will facilitate the creation of a more secure and transparent environment, in which patients will feel more at ease in providing the personal information required for their healthcare.

Exploring Legal Protection for Patients in Dentistry Practice Based on Positivism Perspective

According to Satjipto Rahardjo, legal protection represents an endeavour to safeguard human rights that have been infringed upon by other parties. This protection is extended to the community at large, thereby ensuring that they are able to enjoy the full range of rights enshrined within the legal framework (Raharjo, 2000). The objective of legal protection is to safeguard and uphold the dignity and human rights of all individuals, in accordance with the principles enshrined in Pancasila, which serves as the foundation for the nation's governance. The provision of legal protection for patients in dental practice is of significant importance, as it serves to safeguard the rights of patients during the course of their medical treatment. Both doctors and patients are individuals with equal dignity, and thus both parties to a legal relationship in the form of a therapeutic contract (Santosos & Sulistiyono, 2019).

Patients are individuals who present with physical or mental health challenges and who accept supervision and care, adhere to the treatment plans prescribed by health professionals, and engage with the healthcare system as described by Prabowo (Sutrisno, Hartini, & Erika, 2020). The Law Number 17 Year 2023 provides a more detailed framework for the rights and obligations of patients, which are outlined in articles 276 and 277. Patients are obliged to provide complete and accurate health information, adhere to the instructions and advice of

medical personnel, and comply with the applicable provisions in healthcare facilities. Conversely, patients are also entitled to certain rights. These include the right to access their own personal health information, to receive comprehensive explanations regarding the health services they have received, and to obtain health services that are aligned with their medical needs, professional standards, and the highest standards of service quality (Leany, 2023).

The rights to access health information is an integral component of universally acknowledged human rights. In accordance with Law Number 17 Year 2023 on Health, every individual is entitled to receive comprehensive and accurate information regarding their health status. This legislation underscores the significance of the patient's entitlement to comprehensive and transparent information regarding their health status, forthcoming medical procedures, and potential complications. This right is also in accordance with Law No. 39/1999 on Human Rights, which guarantees every individual access to information related to welfare, including in the health sector. The realisation of this right is contingent upon the establishment of an open and honest communication paradigm between healthcare providers and their patients, which serves as a crucial foundation for the doctor-patient relationship.

The imbalance between patients' rights and doctors' obligations is frequently the root cause of intricate legal disagreements. This situation typically arises when patients believe they have not been adequately informed or feel their right to privacy has been infringed. To illustrate, in a case in Indonesia, a dentist was sued for allegedly failing to provide an adequate explanation of the risks associated with the surgical procedure to be performed. This case illustrates the necessity of achieving a balance between the patient's right to comprehensive and transparent information and the legal safeguards for medical practitioners in practice.

The responsibility of medical practitioners to furnish patients with accurate and comprehensive information is enshrined in Law No. 17 of 2023. This legislation mandates that medical professionals must guarantee the veracity of the information they impart and that it is conveyed in a manner that is readily comprehensible to the patient. Furthermore, the legislation enshrines the right to the confidentiality of patients' medical data. Furthermore, Law No. 39/1999 underscores the fundamental right of every individual to be safeguarded from the improper utilisation of their personal data, including that pertaining to their health. This principle serves as the foundation of medical ethics, which requires medical practitioners to safeguard patient privacy from unauthorised access and misuse of information (Heriani, 2018). The protection of the confidentiality of patient health information is of significant importance not only for the relationship between patients and medical personnel, but also for ensuring compliance with applicable laws (Wirabrata & Darma, 2018). It is imperative that accurate information is provided in order to avoid any allegations of malpractice.

Malpractice is defined as an unprofessional and unethical act or form of negligence committed by a service provider against a consumer. In a legal context, malpractice refers to medical acts committed either intentionally or as a result of gross negligence, which cause harm to patients (Ismoyowati, W T & Sinaga, 2021). In order for an act of malpractice to be proven, it must satisfy the following four legal criteria:

- a. Duty of care, meaning that the doctor or health service recognises the obligation to provide care to the patient. This can be easily proven by the existence of a medical contract. A medical contract occurs when the doctor promises to do his best and the consumer also promises to comply with the instructions and treatment given by the doctor.
- b. Breach of duty, meaning that the doctor did not perform the obligations as they should have. This relates to mistakes or errors in medical actions, not in accordance with service standards, medication errors, and negligence.

- c. Injury to the patient, in the form of physical, psychological, mental injury, permanent disability and death.
- d. There is a direct causal relationship between items 2 and 3, meaning that the injury suffered by the patient is the result of a breach of duty committed by health workers.

Among the four criteria, which requires a direct causal link between the health worker's breach and the patient's injury, is the most challenging for consumers to prove. In other words, the patient's injury must be the result of the health worker's breach. It is unfortunate that victims of malpractice frequently encounter difficulties in asserting their rights. The legislative framework governing medical practice is perceived to afford greater protection to medical practitioners than to consumers. Furthermore, the legislation does not define the term 'malpractice'. Consequently, consumers are unable to exercise their rights to prosecute violations perpetrated by entities such as health workers and hospitals. In light of these constraints, it is to be expected that (Syahputri, Haryanti, & Handayani, 2024).

In the context of legal protection of dental practice patients, the perspective of legal positivism emphasises that the law should be viewed as written rules that are strictly applied without consideration of moral or ethical factors outside the law itself. This focus indicates that legal protection for patients in dentistry must be based on clear and unambiguous rules that have been established within the legal system currently in force in Indonesia, namely Law Number 17 of 2023 concerning Health. The legal positivist perspective emphasises that legal rules must be obeyed regardless of any moral or social aspects that may exist outside the law itself. In the context of patient protection in dental practice, this means that the right to health, as set out in Article 28H of the 1945 Constitution, is a legal entitlement that dentists are obliged to uphold.

The theory of legal positivism is a view in legal science that emphasises the importance of law as rules set by state authorities. It regards law as a positive phenomenon that must be applied without any consideration of morality (Stanford Encyclopedia of Philosophy, 2003). In a positivist perspective, patients' rights are determined by rules that have been enacted by the state (Susantri, 2022). By way of illustration, patients are entitled to obtain clear and accurate information about their health conditions, to have their privacy respected, and to give or withhold consent before undergoing medical procedures (informed consent). In the context of dental practice, these rights are subject to detailed regulation at the governmental level. It is incumbent upon practitioners to implement these regulations in a consistent and rigorous manner. In accordance with their obligations, dentists are required to act in accordance with the professional standards set out in the law. In the event of a dentist's failure to meet these standards, they may be subject to legal liability, whether in the form of administrative, civil, or criminal sanctions. In accordance with the positivist perspective, any contravention of the applicable legislation will inevitably result in the imposition of concrete and objective legal consequences, irrespective of the dentist's intentions or personal circumstances.

One of the most pivotal legal matters is the provision of informed consent. Patients are entitled to receive comprehensive information regarding the proposed medical treatment, including a detailed explanation of the potential risks and benefits. From a positivist perspective, informed consent is a legal obligation that cannot be disregarded. Medical records constitute a fundamental component of the health system, providing indispensable support in the delivery of healthcare services. While serving as a support system, medical records play a pivotal role in evaluating the enhancement of healthcare quality for patients (Imran, Sufyana, & Setiatin, 2021). The greater the comprehensiveness of the medical records, the more evident the physician's or dentist's dedication to the care of their patients, which in

turn can reinforce their legal standing. Furthermore, medical records serve as a means of determining whether the actions taken by medical practitioners are in accordance with applicable medical procedures and ethical codes.

Neglect of this obligation, even if done without ill intent, can still be regarded as a contravention of the law that may result in a lawsuit or claim from the patient. Malpractice in dentistry can be defined as an act of negligence or error in the provision of medical services that results in harm to the patient (Syamsu & Sulistyawati, 2011). In the positivist tradition, malpractice is regarded as a contravention of the established rules of law. Consequently, in the event that a dentist is found to have perpetrated malpractice, they are obliged to face the consequences prescribed by the relevant legislation, whether that be the Criminal Code, the Medical Practice Act, or other pertinent regulations.

If there is negligence in dental treatment that causes injury or loss to the patient, the patient is entitled to claim compensation in accordance with the relevant legislation. From a positivist perspective, this negligence can be regarded as a breach of the dentist's legal obligations. The handling of this negligence case must be based on the existing legal facts and not influenced by moral considerations that fall outside the parameters of the written rules of law. Although legal positivism distinguishes between law and ethics, in the context of dental practice, professional ethics are explicitly defined and regulated within the domain of positive law. The dental profession's code of ethics is legally binding, and violations of this code may result in legal consequences. Consequently, although positivism regards ethics as a distinct entity from law, in the context of dentistry, both are interrelated and subject to the same legal framework.

In the event of a dispute between a patient and a dentist, the patient is entitled to file a claim for compensation if they allege that they have sustained harm as a result of negligence or malpractice on the part of the dentist. The existence of positive law guarantees that patients have a transparent legal route to pursue redress in the event of an infringement, whether through civil, criminal or mediation procedures that are regulated by health law (Hafidz & Bachmid, 2024). From a positivist standpoint, the patient's entitlement to pursue compensation is contingent upon the stipulations delineated in civil law. Furthermore, the process of handling this case must adhere to clear legal procedures, free from any undue influence of emotions or subjectivity. The tenet of legal positivism emphasises the significance of establishing transparent and comprehensive regulatory frameworks that govern the full spectrum of dental practice (Nonet, P, 2019). Such regulations not only encompass the rights of patients but also set out the standards to which dentists must adhere. It is anticipated that the implementation of rigorous regulatory frameworks will enhance the legal protection of patients and mitigate the likelihood of legal infringements within the medical domain.

Court judgments are of significant consequence in the maintenance of legal safeguards for patients in the context of dental practice. Such judgments serve to provide legal certainty for both dentists and patients, enabling them to ascertain whether an action in question meets or violates the applicable legal standards. In recent years, Indonesia has implemented more rigorous regulations pertaining to medical practice, including dentistry. From the perspective of positivism, it is imperative to reinforce these regulations in order to guarantee enhanced protection for patients, particularly in relation to transparency, service standards and patient rights. Therefore, the greater the clarity of the legal framework, the lower the probability of disputes or violations of the law in the dental health sector.

The tenets of positivism offer a coherent and systematic approach to the resolution of disputes between patients and dentists. In resolving this dispute, it is imperative that the

applicable law be the sole reference followed. It is imperative that all decisions are based on legal facts alone, without recourse to non-legal factors that could potentially undermine legal certainty. This ensures the dispensation of objective justice and the protection of all parties involved. From the foregoing explanation, it is evident that the positivist perspective offers a robust foundation for the legal protection of patients in the context of dental practice. The implementation of rigorous legal regulations, transparent procedures, and uniform law enforcement ensures that patients can repose greater confidence in the protection afforded to them, while simultaneously providing dentists with unambiguous guidance in the performance of their duties. This perspective guarantees legal certainty, which is a vital component in ensuring fairness for all parties involved in the healthcare sector.

CONCLUSION

The implementation of artificial intelligence (AI) in the field of dentistry has the potential to enhance legal protection for patients. The utilisation of AI with accurate data analysis capabilities has the potential to enhance the accuracy of diagnoses and treatments, thereby reducing the likelihood of medical errors that frequently form the basis of malpractice claims. Furthermore, AI facilitates the efficient and transparent management of medical records, thereby enhancing accountability in the diagnosis and treatment process. Furthermore, the implementation of AI serves to reinforce the informed consent process, ensuring that patients are furnished with comprehensive and precise information pertaining to the potential risks and benefits associated with a given course of treatment. The incorporation of AI into the dental sector not only enhances operational efficiency but also reinforces legal protection for patients in accordance with applicable standards. This is achieved by improving the quality, safety, and transparency of healthcare services.

The legal protection of patients in dental practice is informed by the tenets of legal positivism, which emphasises adherence to explicit legal norms, such as Law No. 17 of 2023 on Health and Article 28H of the 1945 Constitution. These regulations ensure that patients are able to access accurate information and that their privacy is protected. In light of the stringent legal framework, patients are expected to assert their rights, particularly in instances of malpractice. The obligation of medical practitioners to provide transparent information serves to reinforce the relationship between patients and healthcare service providers. Consequently, the positivist approach not only reinforces the legal protection of patients but also furnishes dentists with unambiguous directives, thereby ensuring justice and legal certainty for all participants within the healthcare system.

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