

Transformation of Islamic values in the era of artificial intelligence

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ABSTRACT

The emergence of artificial intelligence (AI) such as ChatGPT has brought significant changes in the way humans' access and understand information, including in the religious field. This research aims to examine how the transformation of Islamic values occurs through ChatGPT responses in the aspects of educational ethics, Islamic law, da'wah, and Qur'anic interpretation. This study applied a qualitative case study method and data was collected from indexed scientific articles from academic databases, ChatGPT responses, and online news articles. The study findings show that the use of ChatGPT in the context of Islam requires caution. While technology can answer a variety of questions, there are fundamental flaws related to the accuracy of citations, unverified sources of information, and a lack of understanding of the sharia context. In fact, there are errors in the mention of Qur'anic verses that have the potential to cause confusion. This emphasizes the importance of the sanad principle in Islamic scholarship as a valid reference. The paper proposes the need to develop more ethical and contextual AI systems in understanding religious questions, as well as the involvement of scholars and academics in training machines to conform to Islamic values.

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1. INTRODUCTION

The 5.0 society era has made technology an integral part of daily life. The 5.0 society era enables humans to utilize modern technology-based knowledge to meet their needs for fast and comfortable movement. The 4.0 industrial revolution era has introduced humans to the digital world, which leverages internet of things (IoT) technology to connect all information on the internet. Advancements in IoT have led humans to artificial intelligence (AI), which is now widely used by humans [1]. Some time ago, ChatGPT, engineered by OpenAI, became a very popular AI technology. Sam Altman, CEO of OpenAI, noted that ChatGPT had successfully obtained more than one million users in just five days of its primary-stage launch [2]. According to one Swiss Investment Bank, ChatGPT is the fastest-growing application that interacts directly with users in the history of technological development [3].

As an intelligent system capable of understanding its environment to act in ways that maximize opportunities for various purposes [4]–[6], AI operates similarly to how the human brain thinks. AI makes

predictions, answers, or decisions by learning and analyzing as much data as it receives [7]. The development of AI technology has brought about various changes in human life. Taecharungroj [2] revealed that there are four main issues that need to be considered because of AI advances, namely the evolution of work, the new technological landscape, research on general AI, and the ethical dilemma of progress. Previously, Lane [8] observed that the development of AI technology has brought together scientific advancements and issues in religious studies.

ChatGPT is one technological development that has concerned Lane [8], as it is an AI technology that can not only identify patterns in religious practices but also be practically used to write sermons effectively while providing confidence in the perspective of religious studies. Religion has dimensions of sanctity and spiritual values within it. In the beliefs of its followers, religion is always rational and can adapt to developments [9]–[11].

When AI is widely used by society in a religious context, it brings about changes in religious practices, understanding of religious texts, religious education, and other areas [12]. The use of AI has ethical implications in religious practice, religious text translation and analysis, interfaith dialogue, and even theological implications. According to Andriansyah [13], there has been an increase in the number of publications linking religion and AI recently. This also indicates changes or transformations in the practice of religion.

This article examines the possibility of changes and transformations in religious values arising from the development of AI and its use in Muslim communities. Using a case study approach, this research takes ChatGPT as its object of study. This article aims to raise awareness among scholars, policymakers, and religious communities, especially Muslims, so that they are no longer confused by these changes and transformations and can prepare appropriate measures to deal with them in this era of AI.

2. METHOD

The study makes use of a qualitative case study method adopted from Creswell and Poth [14], which focuses on in-depth exploration of unique issues within a limited research framework. This method allows researchers to understand the topic thoroughly and enables flexible interpretation. The steps taken in this study can be explained in the following systematic stages:

- i) Formulation of the research problem or research question. The researcher identifies general Islamic issues and values and their relationship to the development of AI technology. This identification is based on an extensive literature review and focuses on research gaps, namely the intersection between AI and Islamic values that may undergo transformation.
- ii) Determining the scope of the case. The researcher sets the scope of the research topic based on criteria related to Islamic values and epistemology. At this stage, the researcher also limits the study to ChatGPT version 3.0, which has not been upgraded. This is to ensure the appropriateness of using ChatGPT within the framework of Islamic epistemological values.
- iii) Data collection. In this phase, the researcher collects primary data through direct interaction with ChatGPT and conducts continuous simulations over a certain period of time. The researcher uses questions based on prompts related to Islamic education, Islamic law, Islamic da'wah, and interpretation of the Qur'an. Examples of prompts include questions such as: 'What is the AI's perspective on Islamic values?' followed by several questions about Islamic education, Islamic law, and so on. The researcher also utilized secondary data from academic articles in peer-reviewed journals from databases such as Google Scholar, Web of Science (WoS), Scopus, ERIC, and IEEE as well as other relevant documents such as information media.
- iv) Simulation and experimental setup. The simulation was conducted on ChatGPT version 3.0 between January and March 2024. The simulation was conducted in English and Indonesian to observe linguistic nuances in religious interpretation. All ChatGPT responses in the simulation were then saved, categorised, and analysed.

This methodological framework is illustrated in Figure 1, which outlines the research steps from problem formulation to interpretation. To present the data for analysis, the researcher performed the following:

- i) Triangulation and analysis. This was done to ensure validity. Thematic analysis content analysis of the collected data was then repeatedly extracted to identify ethical dilemmas and transformations in expressing religion. The research used Islamic terms as keywords or codes with an inductive-deductive approach.
- ii) Interpretation of results. The researcher then interprets the results of the triangulation and analysis above using Islamic epistemology and values, such as theologies, sharia, da'wah, ethics or morals. This phase also clarifies the changes in Islamic values that have changed or remained in the context of the interaction between Islam and AI technology.

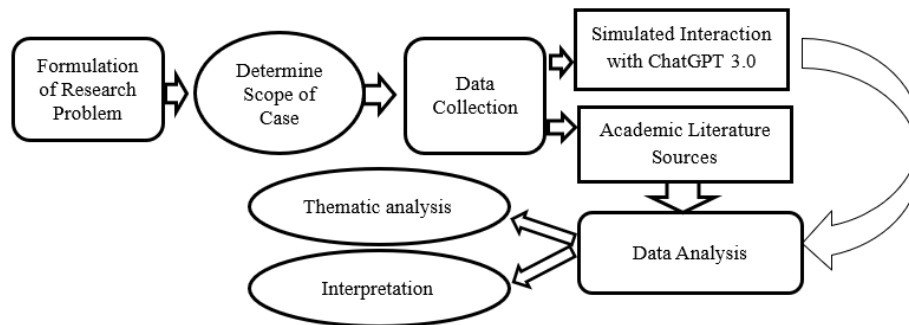


Figure 1. Methodological framework

3. RESULTS AND DISCUSSION

One type of ChatGPT is version 3.0. ChatGPT 3.0 is created after training a language model with data containing 175 billion parameters. Like any other AI in the market, ChatGPT is trained on a broad and naturally occurring text corpus. The corpus consists of different types of texts including, but not limited to, books, webpages, articles, published research, social media interactions, among others. ChatGPT is generative in nature, implying that ChatGPT does not solely perform analyses on existing data, but has the capacity to generate and create new data. ChatGPT has the ability to identify patterns and synthesize new data from those patterns. Because of this generative quality, there are risks of major alterations being made when ChatGPT is applied to religious matters. This research adds socio-religious problems to the fields collected by Dwivedi *et al.* [3].

In religious issues, especially in the field of Islam, ChatGPT can re-conceptualize content so that the results resemble new writing. This study found misinformation as also described by Dwivedi *et al.* [3], although ChatGPT is able to produce credible-looking papers, they are not necessarily based on facts. This finding in the religious field is in line with the findings of Wittmann [15] who gave the reason that ChatGPT has not been able to distinguish between factual and fictional data, so the answers produced can be biased and dangerous. In the context of religion, such errors are sensitive to its adherents. In simpler terms, ChatGPT gets trained on the connections between different texts. The developments and implementations of AI such as ChatGPT are bound to bring major shifts in areas like social structures, business practices, governance, and even in innovation and creativity, including its socio-religious dimensions like promoting religion and inter-religious activities. Although researchers disagree with the findings of Kolides *et al.* [16] who state that there is a high probability that ChatGPT will emerge as a more effective tool of misinformation, disinformation, and manipulation.

3.1. Transformation of Islamic education ethics

Islamic educational ethics place educators as moral controls in the educational process, especially in the digital era that is abundant with information sources [17]. In this context, the presence of ChatGPT as a generative AI has presented new challenges as well as opportunities for the world of education, including religious education. The emergence of ChatGPT that can write text creatively and quickly, Islamic religious educators are required to play an active role as information filters and ethical reinforcers in learning. Dwivedi *et al.* [3] share a similar view, concluding that when ChatGPT is used as a medium in education, it lacks ethical awareness and cannot understand the context of values that should be part of the learning process.

Concerns about ChatGPT's weaknesses, particularly regarding the accuracy of information, have become a topic of widespread debate in global education circles. Some universities have even issued policies banning its use in final project writing and requiring a statement of originality. This concern is not without reason, because the value of truth that is at the core of education can be obscured when the information provided by generative machines does not go through a scientific verification process or tahqiq knowledge as emphasized in the Islamic scientific tradition. This concern arises based on Ray [18] explanation that the use of AI without proper guidance can pose a risk of over-reliance and erode the authenticity of scientific work.

Furthermore, the values of character education, such as honesty, responsibility, and spiritual awareness that have been integrated in Islamic education face great challenges in the AI era [17], [19], [20]. Honesty, for example, is not only a moral attitude, but also a pedagogical dimension that must be exemplified by educators. In the context of using ChatGPT, educators are required to openly acknowledge the use of this technology, both in the development of teaching materials and in the evaluation process. This also applies to students who must also maintain integrity in completing academic assignments, so that AI does not become a means of justifying plagiarism.

Educators in the field of Islamic religion also face the challenge of becoming more critical facilitators and controlling learners' ethics. Several studies have found that the utilization of ChatGPT by students can increase the efficiency of task completion, but risks reducing critical thinking skills and originality. This finding reinforces the statement that educators need to play the role of critical facilitators, not just material teachers [21]–[23]. Ali *et al.* [24] showed that the existence of AI has a significant impact on changes in the learning process in higher education, especially on aspects of academic integrity and character building.

Islamic epistemology is also a serious problem with ChatGPT when used in the process of learning Islam. This AI technology has not fully disclosed its thinking process, and often creates fictitious citations or false attribution of sources [3]. In Islamic education, the accuracy and validity of information is a fundamental principle. The discipline of sanad science in hadith narration demonstrates the importance of verification and transmission of valid information. The above problem arises because the concept of sanad in Islam plays an important role in maintaining the authenticity of Islamic teachings and its relevance to modern education to maintain the validity of religious teachings [25], [26].

In a recent study by Cooper [27], it is stated that the biggest challenge in modern education is not simply in technological adaptation, but in how educators maintain the critical reasoning of students amid the swift flow of instant information from AI. Learning evaluation should not only target the final product, but also the thought process and integrity in acquiring knowledge. In line with that, using ChatGPT as an evaluation tool in Islamic education actually obscures the assessment process itself because it loses track of the learners' cognitive process and affective aspects.

This transformation of educational ethics shows that technology such as ChatGPT has the potential to shift the position of Islamic religious educators from a source of knowledge to simply a supervisor of the education or learning process. This also adds to the urgency of exemplary values shown by Islamic educators. Therefore, it is necessary to strengthen the value of honesty and academic integrity so that education is not just a transfer of information, but also a process of character building. This article agrees that educators must be wise and able to create anticipatory strategies that ensure that this technology supports the goals of Islamic education oriented towards moral nobility and knowledge truth. ChatGPT also offers opportunities for real-time personalization of learning. Thus, this study is in line with previous findings that warn that the use of AI in education must be based on solid ethics and educational principles. From these ethical challenges that need to be resolved, it is hoped that an ethical framework in Islamic religious education will be born so that the integrity and true meaning of Islamic education based on knowledge, morals and exemplary can continue to be carried out properly.

3.2. Transformation of Islamic religious law

The issue of Islamic law and the dynamics of its reform has long been a dominant global discourse, especially in Muslim countries such as Syria, Morocco, and Egypt. Pluralistic Islamic law has developed from the prophetic period to the modern era, with diverse characters and styles according to the social context. However, the emergence of AI technology such as ChatGPT has raised new challenges in the context of understanding and delivering Islamic law to the public. People now do not hesitate to ask religious law questions to ChatGPT, a practice that on the one hand shows openness to technology, but on the other hand raises new epistemological problems in the production and dissemination of religious information.

Several studies have highlighted the limitations of ChatGPT in answering questions of Islamic law accurately and contextually. Although in tolerance and radicalism wrapped in religion ChatGPT is relatively tolerant and not radical. However, Walters and Wilder [28] notes that this model still often provides erroneous Qur'anic verse citations and imprecise legal information. This is in line with the finding of that if not corrected by Islamic legal experts, information from ChatGPT has the potential to mislead people in religious decision-making. The reliance on AI in the determination of laws also raises concerns about the erosion of the duties and functions of muftis and official religious institutions such as the Indonesian Ulema Council (MUI), which have served as the legitimate authority in providing fatwas [29], [30]. AI can also provide easy financial services and platforms for asking legal questions or requesting fatwas digitally.

Methodologically, *ijtihad* as the main pillar in Islamic legal decision-making requires a deep understanding of the social context, *maqashid al-shariah*, and the process of legal analysis based on *ushul fiqh*. This is certainly different from the way ChatGPT works, which relies on data modelling and synthesis of information from various open sources without the ability to understand the depth of the legal context and cultural background of the issues raised [31]. Although ChatGPT is a machine designed to generate coherent and creative responses, inaccuracies in the dataset and biases in its algorithms can lead to erroneous legal conclusions.

This concern is further reinforced by incidents of ChatGPT use in the realm of positive law, such as the case in Manhattan Federal Court. Neumeister [32] reported that lawyers who relied on ChatGPT to construct legal arguments presented fictitious data that confused the judge. This case underscores that AI

does not yet have the capacity to distinguish between fact and opinion, or between normative and non-normative texts, which are crucial elements in the study of law, including Islamic law.

In addition to inaccuracies, ChatGPT also faces the issue of data bias. Several studies have shown that ChatGPT tends to create bias towards race and gender, such as in the case of selecting scientists who are identified with white men [33]. If such biases are not controlled, the use of AI in the legal field, including Islamic law-could seriously distort the principles of fairness and objectivity that are the main basis for *ijtihad* and *istinbath al-ahkam*.

Another important criticism is the loss of the *sanad* element or chain of transmission in the dissemination of legal information through ChatGPT, whereas in the Islamic scholarly tradition, the *sanad* serves as an authoritative validation and verification mechanism that ensures authenticity and prudence in the transmission of knowledge. Without *sanad*, the process of legal inference is no longer bound to the scientific tradition that have been passed down from age to age [34]. The absence of *sanad* is what makes ChatGPT's answer lose the dimension of authenticity in the perspective of Islamic epistemology.

Therefore, if ChatGPT is to be used as a tool in the development of Islamic law, it is necessary to integrate data that is more rigorous and based on authoritative sources. In addition, human intervention as a critical user is needed to interpret and evaluate AI answers ethically and contextually. The use of AI in the context of Islamic law can lead to misinformation and marginalization of established Islamic scientific authorities if there is no active human role as an epistemic corrector. Thus, discussion on the use of ChatGPT in Islamic legal issues cannot be separated from the urgency of strengthening religious digital literacy, the need for standardization of legal sources used as a reference in AI modelling, and the importance of maintaining traditional scientific values such as *sanad* and *ijtihad* which are the spirit in the development of Islamic law. This discussion emphasized that technological sophistication should not replace the depth of knowledge and wisdom in understanding and determining religious law.

3.3. Transformation in Islamic da'wah

The use of AI technology such as ChatGPT in relation to the development of Islamic preaching in the modern era presents unique opportunities and challenges. Features such as ChatGPT's ability to deliver lectures or speak with agility, ease, and even in a customized word choice have been emphasized. This technology can be utilized for various purposes such as compiling sermon texts, creating da'wah content on Islamic websites, and materials for Islamic educational institutions as well as training students' thinking skills systematically. This potential also opens up space for da'wah that is more inclusive and accessible to the wider community, especially the digital generation [35].

In practice, ChatGPT can serve as a helpful tool for preachers or religious leaders. It can help analyze audience data from social media or other digital devices, so that da'wah messages can be tailored to the specific interests and needs of listeners. This is in line with the findings show that AI technology can increase the effectiveness of da'wah communication through an audience preference-based approach. In fact, in the future, this technological sophistication has the potential to expand the reach of religious leaders' da'wah to a wider and more diverse audience.

However, this great potential is inseparable from a number of problems that need serious and critical attention. Misinformation, especially in the mention of Qur'anic verses, has proven to be a serious problem that can even trigger social tensions and increase Islamophobia [36]. Although in more recent versions, such as GPT-4, such errors have been claimed to have been corrected, it does not rule out the possibility that similar errors may reappear, especially in the context of verse interpretation or hadith transmission that require contextual sensitivity and methodological rigor. Figure 2 is an example of an error in the mention of a Quranic verse.

Furthermore, some studies show that ChatGPT still shows inconsistency in answering moral cases. Krügel *et al.* [37] showed that the chatbot can give conflicting answers to the same problem. In one of their experiments, ChatGPT first rejected the sacrifice of one person to save many, but in the second response supported the action. This inconsistency signals that the use of ChatGPT as a provider of da'wah materials cannot be divorced from the supervision and judgement of human Islamic experts.

Another weakness is also seen in ChatGPT's inability to criticize reference sources. As several studies have found that AI does not yet have the ability to validate references, so the accuracy of the material, especially da'wah material such as sermon texts or religious lectures, is questionable. The history of the emergence of false hadiths could be repeated if this does not receive serious attention from religious experts and scholars in the field of Islamic studies [38], [39]. When false information is spread unchecked, disinformation can occur, which weakens the function of da'wah itself.

However, it cannot be denied that ChatGPT offers a significant contribution in providing digital da'wah material. In certain situations, such as limited access to human resources or religious literature, the presence of this chatbot can bridge the community's need for easily accessible da'wah material. There is need for friendly digital da'wah content is still high, and in this case, ChatGPT can be an alternative solution,

although it still requires training and adjustments to present material that is contextual and in accordance with Islamic da'wah principles [40]. However, it is important to emphasize that technical excellence cannot replace the emotional and spiritual touch of a preacher who preaches with compassion and appreciation. Technology does not have the soul to love and touch people's hearts, which is the essence of Islamic da'wah. Therefore, while technology can strengthen the means of da'wah, the substance of da'wah still requires an authentic and empathic human role.

Thus, the ideal approach in utilizing technology such as ChatGPT in da'wah is to make it a tool, not a substitute. Da'wah must still be delivered by humans who have deep understanding and sincerity, while ChatGPT functions as a facilitator for the preparation of supporting material or content. Assistance by educators, preachers, and religious leaders remains necessary so that da'wah remains in the corridor of authentic, accurate, and meaningful Islamic values for society.

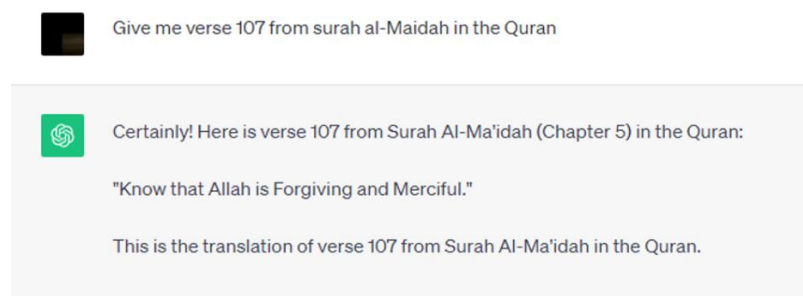


Figure 2. Example of ChatGPT error related to Quranic verses: generated in 20/02/2024

3.4. Transformation of the interpretation of the Quran

A number of significant changes in religious practices have occurred alongside the development of digital technology. In addition to reading and translating the Quran, AI has also made it easier to interpret the Quran. If in the past the understanding and translating of the verses of the Qur'an could only be referred to through conventional books of interpretation or direct consultation with interpreters, now various online sites such as tafsirweb.com have provided access to the interpretation of various verses more openly. However, the presence of AI technology such as ChatGPT provides a new approach that is increasingly attractive and accessible to the wider community. ChatGPT's main advantage lies in its ability to provide real-time, customized responses to user requests, making it a highly flexible tool in explaining the meaning of Qur'anic verses.

This is part of a major transformation in religious approaches. ChatGPT is not only able to present texts, but also analyze and construct interpretations interactively. As exemplified in the study of Al-Janabi [41], this technology is very likely to be used as a digital tool in interpreting Qur'anic scriptures in a contextual and communicative manner. In fact, in this context, ChatGPT can act as a new form of digital interpretation, which is a combination of digital media and machine-based interpretation processes.

Another advantage of ChatGPT that further emphasizes its appeal is the ability to provide interpretations in various languages understood by the user. This addresses a major challenge in contemporary Qur'anic studies, where many tafsir references are still available in Arabic, which for some people is an obstacle in understanding the content of the holy book. Thus, ChatGPT comes as a simplifying medium in bridging the understanding of the sacred text, and opens up vast opportunities to deepen the meaning of the verse in a more inclusive manner, although there remains the potential for inaccuracies in interpretation.

This technology technically works by integrating machine learning and natural language processing (NLP). This enables machines to classify, interpret, and understand text in human language structures. NLP enables ChatGPT to identify themes, narrative patterns and intertextual relations, and even construct more complex semantic relations [42], [43]. However, it is important to note that understanding sacred texts is not solely based on linguistic or semantic logic, but also requires empathy, intuition, and contextual understanding that is closely related to cultural and historical aspects.

Furthermore, the presence of ChatGPT in the world of Qur'anic interpretation also raises philosophical debates about the authority of interpretation. Traditionally, interpreters of the Qur'an must fulfil a number of qualifications, including mastery of sciences such as nahwu, sharaf, balaghah, hadith science, sababun-nuzul, qira'at, and ushul fiqh [44]. However, in the context of ChatGPT, these requirements seem to be replaced by the ability to access and combine various scientific references simultaneously in a short time.

However, it should be emphasized that the accuracy and validity of machine-processed information still require human verification, especially in the context of highly sensitive sacred texts.

This condition shows that what Young [45] initiated through the concept of religion online is now closer to reality. People now easily access religious information online and tend to make digital platforms the main source of understanding religion. Even further, the use of ChatGPT can be seen as a form of religion online, which is a religion that is carried out virtually through digital interactions, both in learning religion and practicing religious rituals online.

However, these changes also pose serious challenges to the traditional role of religious leaders. As illustrated by Geraci [46] about robot Buddhist priests in Japan who are able to sing hymns and perform religious rituals, a similar phenomenon has the potential to emerge in the Islamic context with the presence of ChatGPT as a digital interpretive entity. Of course, the existence of this kind of technology must be addressed wisely, because in fact technology is only a tool, not a substitute for scientific authority and human spiritual experience.

In this context, it is important to emphasize that although ChatGPT presents various opportunities in the transformation of Qur'anic interpretation, the role of humans as custodians of spiritual, cultural and moral values remains irreplaceable. Technology can be a complement, not a substitute. Thus, collaboration between AI and human spiritual intelligence is important to ensure that the use of technology in understanding the Qur'an remains within the epistemologically and ethically correct corridor. Overall, an ethical framework for interacting with AI is urgently needed. Digital literacy for AI users when interacting with Islamic themes is very important. Scholars are urging immediate collaboration with AI developers to respond to developments in digital technology.

4. CONCLUSION

The transformation of religious values driven by AI, particularly ChatGPT, includes the potential use of ChatGPT to improve efficiency in religious education. ChatGPT can provide ease in obtaining religious information, advice, and solutions while also posing significant challenges regarding the accuracy and credibility of the information generated. The use of ChatGPT by religious communities as a tool for moral decision-making creates uncertainty in responses and raises questions about the reliability and caution required when using this technology. The big data related to religious issues used by ChatGPT requires an accountable dataset, and ChatGPT needs to be trained to understand religious contexts to avoid errors in quoting Quranic verses or other references.

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AUTHOR CONTRIBUTIONS STATEMENT

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C : C onceptualization	I : I nterpretation	Vi : V isualization
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So : S oftware	D : D ata Curation	P : P roject administration
Va : V alidation	O : O riginal Draft	Fu : F unding acquisition
Fo : F ormal analysis	E : E diting	

CONFLICT OF INTEREST STATEMENT

Authors state no conflict of interest.

INFORMED CONSENT

We have obtained informed consent from all individuals included in this study.

DATA AVAILABILITY

Data availability is not applicable to this paper as no new data were created or analyzed in this study.





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