Letter to the Editor

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Letter to the Editor "Survey on Value Elements Provided by Artificial Intelligence and Their Eligibility for Insurance Coverage With an Emphasis on Patient-Centered Outcomes"

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I am writing about Jhang et al. [1] recent work, "Survey on Value Elements Provided by Artificial Intelligence and Their Eligibility for Insurance Coverage With an Emphasis on Patient-Centered Outcomes." This study examined the implementation of artificial intelligence (AI) in healthcare and its value elements, including the possibility of insurance reimbursement and patient-centered outcomes (PCOs).

This study is timely and valuable, as it addresses crucial issues in contemporary healthcare. As AI has become an integral part of medical facilities, understanding its value

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This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (https://creativecommons.org/licenses/by-nc/4.0) which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited. and ensuring patients' awareness of insurance coverage are critical. This study classifies the value elements of AI into four categories—clinical outcomes, economic aspects, organizational aspects, and non-clinical PCOs—offering a clear understanding of the perception of these elements.

This study highlights that non-clinical PCOs have lower insurance approval rates than clinical outcomes. This finding reveals a potential deficiency in existing insurance models that might hinder AI technologies designed to enhance patient-centered care [2].

The survey involved a cross section of patients, healthcare professionals, industries, and government health teams, making the results representative of the healthcare system. However, respondents generally have little direct interaction with AI-related PCOs, indicating a lack of understanding among stakeholders about the potential of AI to improve PCOs [3].

These findings suggest that insurance decisions may underestimate non-clinical PCOs. As personalized medicine emerges, insurance legislation must adapt to and acknowledge AI technologies that enhance patient satisfaction and quality of life, making them reimbursable [4].

Researchers have used systematic narrative synthesis to identify stakeholder views on the applicability of AI in PCOs and their insurance-reimbursable characteristics. This study emphasizes the importance of multi-stakeholder dialogue and awareness.

Enhancing the knowledge about PCOs among practitioners, patients, and policymakers is recommended. Educational programs can highlight the impact of AI on healthcare and promote its use in improving patients' quality of life and well-being.

Jhang et al. [1] also highlighted the potential of AI to improve clinical outcomes, financial resource use, and organizational processes. However, failing to correctly value nonclinical PCOs threatens the vision of AI in healthcare. Stakeholders must ensure the proper implementation of AI technologies to enhance patient experience and benefit the overall healthcare system.

Insurance providers, clinicians, patients, and policymakers should increase awareness of non-clinical PCOs. Educational programs and workshops can help stakeholders understand the value of AI in PCOs. Recognizing PCOs will make stakeholders more supportive of AI's role in healthcare and



encourage insurers to expand their coverage.

Insurance policies should be reviewed to consider nonclinical outcomes more significantly. Decision makers should adjust the assessment parameters to include PCOs, guaranteeing the proper insurance of AI tools that enhance these outcomes. This will promote AI tools that improve the quality of life of patients, benefiting both patients and the healthcare system [5].

The effective development and application of AI technologies hinges on stakeholder involvement through communication with patients and advocacy organizations. Engaging stakeholders through meetings, questionnaires, and focus group discussions can inform policies and community healthcare practices.

Future work should focus on the long-term impact of AI on PCOs and refine the methods for measuring these outcomes. Consequentialist approaches can reveal how AI technologies influence patient-centered values and guide policy development.

Jhang et al. [1] highlighted the current state of AI insurance coverage and importance of incorporating PCOs into healthcare insurance evaluations. Addressing these gaps will support a more inclusive AI that enhances healthcare delivery.

Conflicts of Interest

The author has no potential conflicts of interest to disclose.

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REFERENCES

- Jhang H, Park SJ, Sul AR, Jang HY, Park SH. Survey on value elements provided by artificial intelligence and their eligibility for insurance coverage with an emphasis on patient-centered outcomes. *Korean J Radiol* 2024;25:414-425
- 2. Pal S. Survey on artificial intelligence and healthcare: applications, ethics, and privacy. *Juni Khyat* 2024;14:37-45
- Robinson R, Liday C, Lee S, Williams IC, Wright M, An S, et al. Artificial intelligence in health care-understanding patient information needs and designing comprehensible transparency: qualitative study. *JMIR AI* 2023;2:e46487
- Kruk ME, Gage AD, Arsenault C, Jordan K, Leslie HH, Roder-DeWan S, et al. High-quality health systems in the sustainable development goals era: time for a revolution. *Lancet Glob Health* 2018;6:e1196-e1252
- Park SH, Park CM, Choi JI. [Health insurance coverage for artificial intelligence-based medical technologies: focus on radiology]. J Korean Med Assoc 2021;64:648-653. Korean