Editorial

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Gender equity in medicine, artificial intelligence, and other articles in this issue

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Sex differences in medicine

In a previous editorial [1], I emphasized the *Ewha Medical Journal*'s gender equity policy. In this issue, Dr. Na-Young Kim, a gastroenterologist at Seoul National University, curated a special section on the topic of sex differences in medicine. She assembled one original and five review articles. Among these, "Health of Korean sexual and gender minorities: a narrative review of quantitative studies" by So et al. [2] is an outstanding article that provides a comprehensive overview of the health of LGBTQIA+ individuals, covering a range of identities, including lesbian, gay, bisexual, transgender, questioning, intersex, asexual, and other diverse groups. This article is unprecedented in the Korean medical literature. Individuals who belong to sexual and gender minorities in Korea face significant mental health challenges. The review highlights their high rates of depression and anxiety, as well as elevated prevalence rates of suicidal thoughts, planning, and attempts. Furthermore, these individuals report a lower perceived health-related quality of life than the general population. Sexual minorities who experience discrimination or are pressured to change their sexual orientation or gender identity are at an even higher risk of mental health issues.

The study by Choi et al. suggests that sex differences exist in the impact of obesity on the development of gastric cancer, with a positive association between excess body weight and an increased risk of gastric cancer in Koreans, particularly in highly obese men [3].

This issue of the journal contains reviews on various topics, including sex differences in metabolic dysfunction-associated fatty liver disease, sex differences in coronary atherogenesis, research on sex differences in neuroscience, and sex bias in autism spectrum disorder using preclinical rodent models. All these topics concerning sex differences in medicine are expected to engage both Korean and international readers.

Regarding diversity, equity, and inclusiveness in the target population of medical research, sexual and gender minorities often receive primary attention. Other groups in Korea, such as immigrants, disabled persons, and prisoners, also merit consideration. I plan to continue addressing issues concerning these groups in *Ewha Medical Journal*.

Deep learning and generative artificial intelligence platform

The article by Choi et al. [4] on the accurate prediction of pediatric bone age using deep learning demonstrated that "the deep learning-based Korean model exhibited higher bone age

prediction accuracy than conventional methods, a crucial advancement for accurate growth assessment and clinical decision-making." These results can be applied to deep learning algorithms for estimating bone age.

Baik and Lee discussed the role of artificial intelligence (AI) in general surgery [5]. They analyzed published research to clarify the potential applications of AI in this field. Their findings indicate that the implementation of AI in the preoperative stage is becoming feasible, although its use in the operating room requires further investigation. They recommend developing AI tools specifically for general surgery, which can be achieved by promoting interdisciplinary collaboration and leveraging insights from successful AI applications in other fields.

Since AI has become an indispensable tool in medical care and education, submissions focusing on the use or development of AI are welcomed.

Public health

Lee et al. [6] published a high-quality systematic review on the relationship between exposure to air pollution and precocious puberty. They noted that "most studies suggest that exposure to air pollutants accelerates pubertal development; however, the results from the available studies are inconsistent." Dr. Eunhee Ha, the corresponding author of this systematic review, currently serves as the dean of Ewha Womans University College of Medicine. She is recognized globally as an outstanding researcher in environmental medicine. I am pleased to publish her excellent research findings.

Mr. Seokmin Lee, an officer at the Statistics Research Institute, Statistics Korea, published an article with up-to-date comprehensive data on drug-induced deaths in Korea from 2011 to 2021 [7]. In 2021, Korea exhibited a staggering 172.7% increase in drug-induced deaths compared to 2011, with the number rising from 205 to 559 cases. The rate of drug-induced deaths per 100,000 population also increased dramatically by 153.6%, from 0.4 in 2011 to 1.1 in 2021. Although the rate of drug-induced deaths in Korea (1.1 per 100,000) remains relatively low compared to that of the United States (29.2 per 100,000), this cause of mortality has been on an alarming upward trend in recent years. Notably, drug-induced deaths disproportionately impact younger demographics, and a significant proportion involves intentional self-harm. This data will be an essential source for research in this field. I anticipate further submissions from the officers of the Statistics Research Institute in the future.

One of the most striking articles in the issue may be the study by Lee et al. [8] at the Infectious Disease Research Center, Seoul Metropolitan Government, entitled "Using an influenza epidemic threshold different from those in the United States and Europe caused longer epidemic periods in Korea during the 2018–2019, 2019–2020, and 2022–2023 seasons: a comparative study." The authors pointed out that "a low influenza epidemic threshold may have contributed to this long influenza epidemic period declared in 2022 and has continued until late 2023 in Korea" based on their comparison of the seasonal influenza epidemic thresholds in Korea, the United States, and Europe. These findings could potentially influence the Korean government's epidemic threshold, which is crucial for predicting and preventing influenza epidemics.

It has been seven months since I accepted the position of editor-in-chief in response to an offer from the Dean, Dr. Eunhee Ha, in September 2023. The primary challenge in publishing this institutional journal has been the shortage of submissions. Therefore, I have made significant efforts to attract submissions from renowned medical researchers in Korea. The April issue marks the fourth issue I have edited for this journal. The number of articles has reached a satisfactory

level and meets the eligibility criteria for evaluation by major literature databases. Regarding the quality of the articles, I have endeavored to maintain or surpass the minimum quality standards required by these databases.

I appreciate the authors who contributed to this issue for submitting high-quality articles and case reports. I believe these papers will serve as exciting resources for medical researchers, as well as for graduate and undergraduate medical students.

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Authors' contributions
All work was done by Sun Huh.

Conflict of interest
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