



# Efforts toward Gender Equality and Diversity in the Japanese Society for Neuroendovascular Therapy

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The Japanese Society for Neuroendovascular Therapy (JSNET) is a diverse subspecialty society based on four basic fields and is continuously growing with the advancement of neuroendovascular therapy. Despite a recent increase in the proportion of female members, awareness of diversity within JSNET remains inadequate. To foster a more mature and inclusive society, we established the JSNET-Diversity Promotion Committee in 2021, which has actively engaged in various initiatives aimed at promoting the inclusion of minorities such as female physicians as well as minority fields. Our objective is to continue in our initiative, anticipating that JSNET will evolve into an even more ideal organization in the future.

**Keywords** ▶ neuroendovascular therapy, diversity promotion, female physicians

## Introduction

The growing effort to recognize and accept diversity, which is important for companies and academic societies to innovate and mature, has recently attracted worldwide attention.

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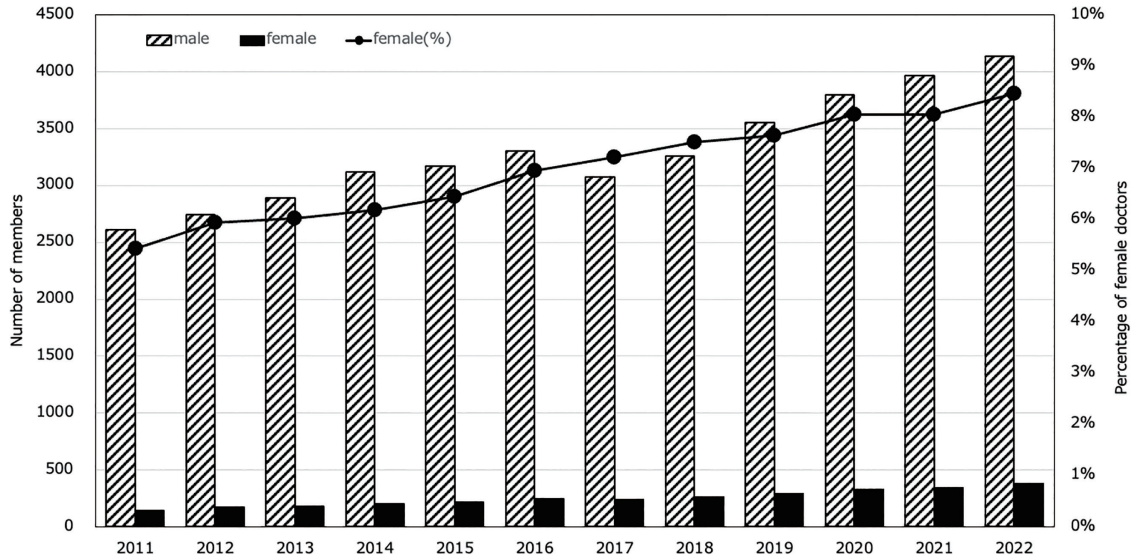
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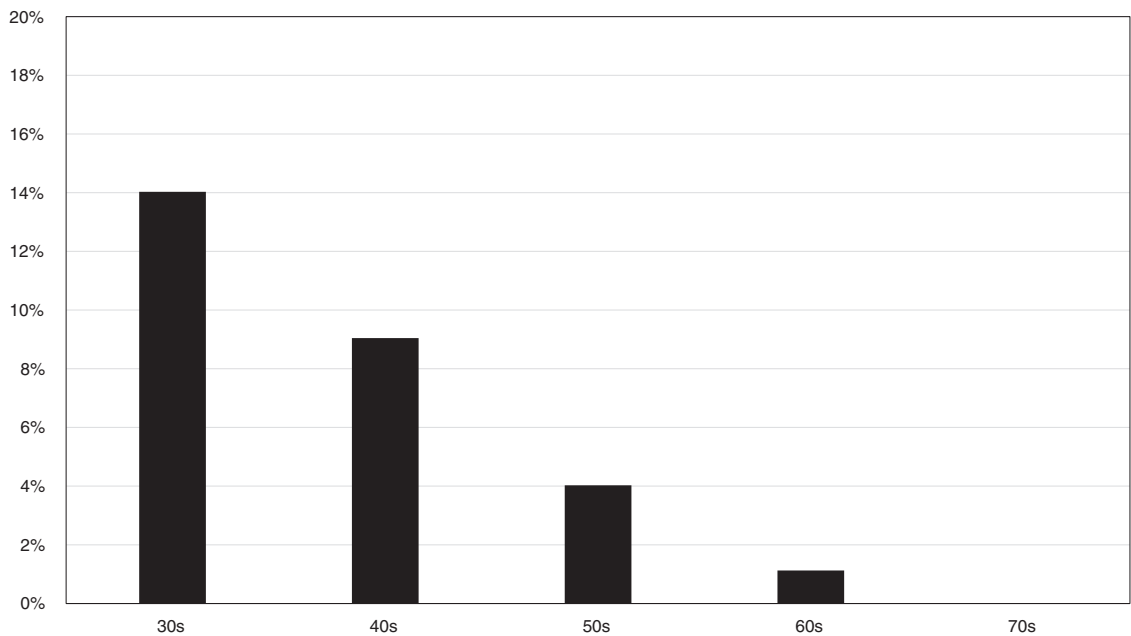
Diversity entails more than merely achieving gender equality; however, the inability of organizations to incorporate females, which comprise the largest minority group, indicates a lack of inclusivity of other minority groups. Despite the recent global trend in proactive movement toward diversity promotion including gender equality and women's empowerment, awareness of gender diversity in Japan remains significantly lower compared to other countries.

Japan ranks the lowest among the G7 countries for gender equality, ranking 125th out of 146, which is down from 116th place last year according to the latest Gender Gap Index.<sup>1)</sup> The lack of women's participation in economics and politics is quite noticeable, and the ratio of female managers to all employees was recorded at 13.2% in the White Paper on Gender Equality 2023 published by the Cabinet Office.<sup>2)</sup> This situation is also a problem in the medical field, particularly in surgical departments dominated by males.

The overall number of female physicians has been gradually increasing in Japan, particularly among the younger generation (36.2% among physicians in their 20s, 31.6% in their 30s, 29.7% in their 40s, 20.9% in their 50s, and 12.8% in their 60s) (2022 survey of Ministry of Health, Labor and Welfare). However, this distribution varies by department, with high percentages in dermatology (56.2%), gynecology (47.9%), and anesthesiology (42.8%), and a low percentage in cardiovascular surgery (6.5%), orthopedic surgery (7.0%), and neurosurgery (7.5%).<sup>3)</sup> In the field of neurosurgery, females still remain a minority, as do they in other countries, with 19% in Germany,<sup>4)</sup> and 9.6% in the United States.<sup>5)</sup> Many articles aimed at improving awareness of



**Fig. 1** Annual trends in the number of female members in JSNET. JSNET, Japanese Society for Neuroendovascular Therapy



**Fig. 2** Percentage of female members by generation in 2022.

gender equality have addressed gender gaps in authorship,<sup>6)</sup> work–life balance,<sup>7)</sup> and academic career,<sup>4,8)</sup> having been published even in Western countries. However, the status of gender equality in Japan lags far behind.<sup>8–10)</sup>

The Japan Neurosurgical Society has an increasing proportion of female members, particularly among the younger generation (39.2% in their 30s)<sup>9)</sup>; however, the ratio of female board members has remained small at 1.4% of delegates (5 out of 345) and only one director (1 out of 20).

The Japanese Society for Neuroendovascular Therapy (JSNET) is a diverse subspecialty society based on four basic fields: neurosurgery, neurology, radiology, and emergency medicine. It undergoes continuous annual growth along with the development of the neuroendovascular therapy field, with more than 4000 members including 1800 qualified specialists. The percentage of female members is at 8.5% (**Fig. 1**) and gradually increasing with each generation, with 14% of members in their 30s (**Fig. 2**).

This trend is similar to that seen in the Japan Neurosurgical Society as the majority of JSNET members are neurosurgeons. The gender ratio of JSNET is expected to change significantly over the next decade and will likely reach that of neuroradiologists in the United States (19.4%).<sup>5)</sup>

To foster a mature and inclusive society within JSNET, we established the Diversity Promotion Committee in 2021 and engaged in various initiatives aimed at promoting minority groups, particularly female physicians. This article introduces our history, activities, and future direction.

## Establishment of a Committee

To address and support the various issues faced by JSNET members related to diversity, our committee was initially established as a “gender equality committee” in April 2021. The inaugurated members were a diverse group consisting of 4 male and 5 female members with different basic fields and positions to inclusively incorporate minority opinions. However, in the same year, the name was changed to “Diversity Promotion Committee” to address various issues beyond gender equality. Simultaneously, we opened a member consultation desk on the JSNET web homepage to provide an environment in which members can easily submit their opinions to society.

## JSNET Activities

### Symposium at the JSNET annual congress

After we surveyed all members to investigate their work environment and the need for diversity in our society, a summary of the findings was presented at the annual JSNET congress in 2021, and subsequently published as a paper.<sup>11)</sup> Responses were received from 848 physicians out of 4374 physician members (19.4%), with a gender distribution of 95% male and 5% female, and representation from the specialties of neurosurgeons 19%, neurologists 6%, and radiologists 1%.

Although there were issues related to life events or career development, the majority of respondents agreed with increased diversity and inclusion within JSNET. Respondents who had temporarily left clinical activities owing to their own illness or life events accounted for 14% of all respondents, and 67% said that the continuous educational program (CEP) held at every annual JSNET meeting was helpful when returning to clinical practice. This reaffirmed the importance of continuing the CEP in similar situations in the future. In addition, 21% of respondents



**Fig. 3** Symposium held at JSNET2023 to discuss the career paths of female physicians in various fields. JSNET, Japanese Society for Neuroendovascular Therapy

reported experiencing situations where either their colleagues or themselves became pregnant. It became evident that their worries about radiation exposure to the fetuses came from insufficient knowledge.

Based on these results, we held a symposium on “occupational radiation exposure” at the next annual congress, JSNET 2022, as a joint project with the Radiology Technologist subcommittee. A consensus was reached that if proper protection is implemented and exposure levels are strictly checked using dosimeters, there is no need to prohibit normal work, except during the early organ-forming period of pregnancy. Guidelines on this issue have already been published by the Japanese Circulation Society<sup>12)</sup>; therefore, with permission from the society, we included them on our website.

The Symposium at JSNET 2023 was held to discuss the career paths of female physicians in various fields (neurologists, radiologists, and neurosurgeons) and various generations (from trainees to professors), which was frequently requested by members in the survey. Professor Tanaka, the President of the World Federation of Interventional and Therapeutic Neuroradiology (WFITN), delivered a lecture on activities for diversity and inclusion in WFITN (**Fig. 3**) and introduced several projects such as the Mentorship program, Education & Collaboration course, and grants for observers from low- and lower-middle-income countries, women in training, or young interventional neuroradiologists.

## Communication with Other Societies

We exchange information regarding diversity promotion activities with other medical societies or academies and



**Fig. 4** Social event for female neuroradiologists from various countries held at WFITN 2022. WFITN, World Federation of Interventional and Therapeutic Neuroradiology

actively participate in social events. The WFITN 2022, originally scheduled for Kyoto but postponed for a year owing to the COVID-19 pandemic, featured a symposium on diversity and inclusion. During the event, we interacted with female physicians of various nationalities at the women's INR dinner (**Fig. 4**).

## Future Directions

The upcoming plans for this society included (1) enhancement of JSNET homepage content including posting role models for female academic physicians and (2) conducting a survey on trends in the number of female chairs and symposiasts at the annual congress. We anticipate that these actions will contribute to improving the academic performance of female members.

This year, JSNET will change its corporate personality from a specified nonprofit organization to a general incorporated association, and a representative system will be introduced accordingly. We investigated the diversity situation among delegates in other academic societies in Japan, and it became clear that many of these societies strive to have the same proportion of female delegates as female members among all members. It has become clear that affirmative actions, such as voting or designated quotas, are necessary.

We have mainly focused on efforts toward gender equality, but there is a need for proactive engagement with other diversity issues in the future.

## Disclosure Statement

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