

Working Conditions and Lifestyle of Female Surgeons Affiliated to the Japan Neurosurgical Society: Findings of Individual and Institutional Surveys

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Abstract

To investigate the working conditions of female neurosurgeons in Japan, two surveys were conducted by The Japan Neurosurgical Society: one involving female neurosurgeons themselves and the other involving the chiefs of neurosurgical departments. The responses were received from 224 (43.8%) female neurosurgeons and 496 (61.2%) departmental chiefs. About half (50.2%) of the female neurosurgeons were married and 39.2% had children (average number of children, 1.27). Their work was full-time in 80.6% of cases; on average, they worked 51.9 h per week, had night duty 2.8 times per month, and had 5.7 days off per month. Many of them stated that they were satisfied with their job status, but about half of them reported difficulty in maintaining a correct work–life balance. Among the institutions surveyed, 29% had female neurosurgeons. The survey of departmental chiefs revealed that the proxies for maternity leave were not available at most institutions, and that there was only limited availability of night child care (41%) or sick child care (39%); female neurosurgeons did not appear to be well-informed of these support systems. These findings suggest that apart from systematic approaches already in place, female neurosurgeons would prefer to have more understanding from their peers and chiefs.

Key words: work–life balance, female neurosurgeon, questionnaire

Introduction

In Japan, women at one time constituted a minority among working physicians, and an even smaller

proportion became neurosurgeons. In 1990, the proportion of women among national board qualified physicians was 18.5%, but currently about one-third of qualified physicians are women. It is important that female doctors are able to contribute fully to all specialized branches of medicine. Although only

5.6% of members of the Japan Neurological Society are women, currently 12% of new members joining are women and their proportion is increasing. In order for them to work to their full potential, it is very important to know their working circumstances or any problems they might be facing. For this purpose, the Gender Equality Committee of the Japan Neurosurgical Society has performed two surveys, one involving female neurosurgeons themselves and the other involving the chiefs of neurosurgical departments. This report summarizes and discusses the results of those surveys.

Materials and Methods

The studies were conducted between October and December 2013. On October 29–30th, e-mails were sent to women members of the Japan Neurosurgical Society and also to the chiefs of the neurosurgical units of official neurosurgical board training hospitals, asking them to respond to the web-based questionnaire. The data from the web-based survey were collected anonymously. For the survey of women members, personal background data including age, marital status, and presence/absence of children were gathered, as well as, data regarding job position, working circumstances, job satisfaction and issues including child care facilities and maternity leave. The participants were also encouraged to comment freely on working conditions in open-ended answers. The survey of the departmental chiefs inquired about the number of neurosurgeons at each hospital, case load and number of operations conducted, presence of female doctors, working conditions in relation to life events such as maternity and child care leave, and specific issues related to female doctors.

Results

Survey of women members

Among 512 women members of the society, 224 (43.8%) responded to this survey. Demographic data for the survey respondents are given in Table 1. The age range was 25–69 years (median 38 years), and the average weekly working time was 51.9 (± 24.5) h. As for marital status, 50.4% were married and 49.6% were single/divorced. Eighty-eight (39.4%) had child(ren) and the average number of children was 1.27. As for job status, 80.4% were in full-time employment, 3.2% were reduced-time full-time workers, 5.6% were working part-time, and 2.6% were not working. Night duty per month varied from 0 to 15 times (average 2.8 times), and the monthly number of days off was 0–26 (average 5.7). Among those surveyed, 83.8% were satisfied

Table 1 Demographic information for survey respondents

Variables	Total 224
Current age, y, mean (range)	39.2 (25–69)
Married	113 (50.4%)
Child/children mean	1.27
1 child	65.90%
2 children	23.90%
1–4 years old	44.30%
Job status	
Full time faculty, trainee	174 (80.6%)
Reduced-time full time worker	7 (3.2%)
Part time worker	12 (5.6%)
Not employed	8 (2.6%)
Night duty/month mean (range)	2.8 (0–15)
Days off/month mean (range)	5.7 (0–26)

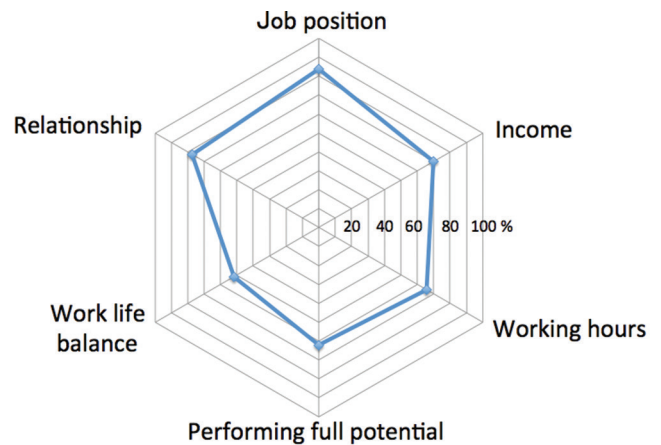


Fig. 1 More women neurosurgeons were satisfied with their job position or incomes, but almost half were not satisfied with their work–life balance.

with their job position, 70% with their income, 65.7% with their working hours, 62% with their performance relative to their full perceived potential, 77.3% with their relationship to peers or superiors, and 51.9% with their work–life balance (Fig. 1). As for life events, 50 (22%) had been able to take child care leave after an average of 9.2 years into the job. Thirty-three (11%) had quit their full-time job. Among them, seven had quit because they had been unable to take child care leave, even though child care leave is officially guaranteed by law in Japan. Another seven had quit for other reasons related to life events such as pregnancy or infertility treatment. Four had quit because of friction with their departmental chiefs/professors.

Problems faced by female neurosurgeons with children included lack of appropriate child care

facilities (36%), acute childhood illness (72%), child education (45%), child psychological problems (51%), long school vacations (27%), events related to child care (38%), and events related to school life (22%).

During work time, children of female neurosurgeons had been taken care of by licensed nurseries in 40 cases (45.4%), by grandparents in 24 cases (27.2%), by after-school care programs in 16 cases (18.2%), by unlicensed nurseries in 29 cases (33.0%), by babysitters in 11 cases (12.5%), and by spouses in 9 cases (10.2%). When children had become ill, 47 female neurosurgeons had had to ask their parents (grandparents of the children) to be carers, 46 had had to take care leave, 22 had had to ask their spouses to take care leave, 17 had hired temporary baby sitters, and 16 had used sick child care.

With regard to support systems for mothers and parents, night child care was available at 21% of institutions, and sick child care was available at 18%.

Exemption from night duty during pregnancy was available at 38% of institutions, was not available at 18%, and at 44% of institutions, female neurosurgeons did not know whether pregnancy exemption was applicable.

Proxies for female doctors on maternity leave were available only at 5% of the institutions, and 95% of the respondents stated that it was not available, or that they did not know.

Survey of neurosurgical unit/departmental chiefs

The survey was sent to 810 neurosurgical units/departments, and there were 496 responses (61.2%). The average number of neurosurgery beds at each institution was 37, and the median number of operations conducted per year was 200. On average, there were six neurosurgeons per institution (ranged 1–39). Women doctors were working at 29% of the institutions (one at 114 institutions and two at 23). As for support systems for child-bearing mothers, exemption from night duty during pregnancy was available at 86% of institutions, was not available at 7%, and at 7%, the departmental chiefs did not know whether pregnancy exemption was applicable.

Proxies for maternity leave were available only at 15.9% of the institutions, 69.7% of the respondents answered that proxies were not available, and 14.5% stated that they did not know whether proxies were available.

Female neurosurgeons took maternity or child care leave at 59 institutions, and at 40 institutions, no proxies could be found. After maternity/child care leave, 76 female neurosurgeons returned to clinical practice, but only 48 did so as full-time neurosurgeons. Sixteen returned as part-time neurosurgeons

and five doctors changed their specialty (neurology, rehabilitation, internal medicine, or obstetrics–gynecology (OB–Gyn)).

Sixty-six percent of the departmental chiefs stated that they were very willing to accept female neurosurgeons, but 25% stated that they would be reluctant to accept them. Sixty-eight percent of the departmental chiefs stated that they would be willing to help female neurosurgeons who had temporarily taken leave of absence in “back to work” activities such as joining in conferences or observing surgical procedures.

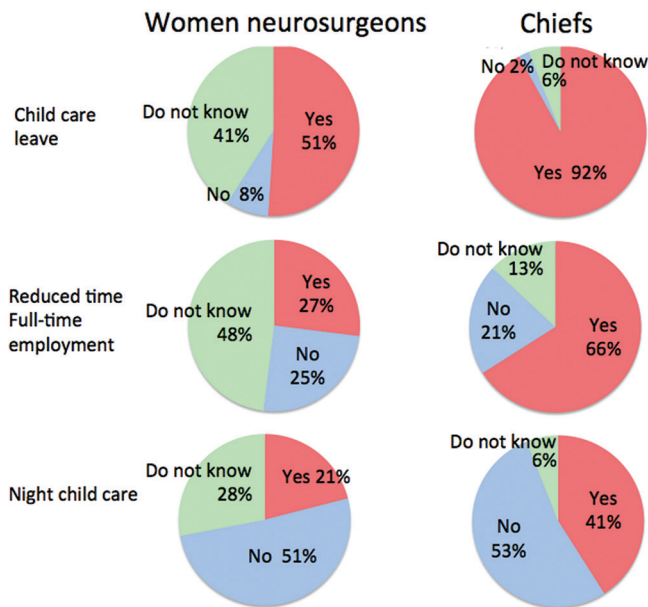
Discussion

This is the first survey to investigate the working conditions and lifestyle of Japanese female neurosurgeons. As the number of women physicians working in the neurosurgical field has been increasing, it is very important to clarify their working conditions and work-related difficulties, especially those related to life events. A number of previous investigations or surveys have investigated work-life balance and working conditions in various medical fields.^{1–10} There have also been several reports in the field of neurosurgery, but none have focused on the working conditions of female neurosurgeons.^{11,12}

In Japan, survey of the lifestyles of women doctors or doctors of both sexes have been conducted by the Japan Pediatric Society,¹ the Japan Association of Obstetricians and Gynecologists,² and the Japan Association of Women Surgeons.³ Nationwide surveys of women doctors have also been done, without focusing on any particular specialist field.^{4,5} We have been able to extract some quantitative data from these previous investigations (Table 2). In terms of hours worked per week, OB–Gyn doctors’ work: 71 h per week including hospital stays, pediatricians’ work: 44.5 h, and general surgeons’ work: 40–60 h (median). Therefore, the 51.9 h worked by female neurosurgeons is shorter than the time worked by OG–Gyn doctors, longer than that for pediatricians, and similar to that for general surgeons. The number of night duties worked per month is 2.8 times for neurosurgeons, which is more than for pediatricians (1.24 times) and less than that for OG–Gyn doctors (5.8 times). With regard to personal lives, 49.6% of female neurosurgeons are not married, which is a greater proportion than for surgeons (35%), pediatricians (28.5%), and data from a national survey (41.9% (4) or 38.7% (5)). In comparison with surgeons, for whom raw survey data are available, the difference is significant ($P = 0.02$). With regard to children, 71.7% of female surgeons are mothers, in comparison with only 39.3% of female neurosurgeons

Table 2 Comparison of working conditions and personal status of physicians in various fields

	Working hours/ week	Night duty/ months	Not married/ divorced	Have children	Number of children
Neurosurgeons	51.9	2.8	49.6%*	39.3%**	1.27
Pediatricians	44.5	1.24	28.50%		
OB/GYN	71	5.8			
General surgeons	40–60 (median)		35%*	71.7%**	
National survey 1			41.9%		1.73
National survey 2			38.70%		1.66

* $P = 0.02$, ** $P < 0.01$ **Fig. 2 Women neurosurgeons showed less recognition of work support systems in comparison with chiefs of neurosurgical departments.**

($P < 0.01$), and the latter also have fewer children. Child care leave after giving birth is an officially approved system supported by the government, but 49% of female neurosurgeons stated that no child care leave was available to them or that they were unaware whether such a system existed. On the other hand, 92% of the departmental chiefs knew about this system. This difference indicates that female neurosurgeons are not well acquainted with the system, or even have never had to face this issue and thus have had no need to know about it. According to a survey by the Japanese Pediatric Society, 49% of female pediatricians knew that they were entitled to child care leave, 29.7% thought that they were not entitled, and 21% did not know. These data indicate that working female doctors not only neurosurgeons, but also pediatricians, do not really know the situation regarding child care

leave. There are also differences in understanding between female neurosurgeons and departmental chiefs with regard to other support systems such as reduced full-time employment or night-time child care (Fig. 2).

As for feelings about their jobs, more than two-thirds of female neurosurgeons are satisfied with their position (83.8%) or income (70.0%), but not so many are happy about their work-life balance (51.9%) or working hours (65.7%). These figures are higher than for female pediatricians (position 58.8%, income 54.6%, work-life balance 38.5%, and working hours 43.7%).

In the “open-ended answer” section, both female doctors and departmental chiefs considered it as important to establish support systems for life event-related problems such as child care, sick child care, or re-education after child care leave or temporary job absence. However, one point that departmental chiefs did not describe but which women doctors considered the most important was understood from the senior doctors or chiefs.

In conclusion, Japanese female neurosurgeons appear to be satisfied with their job status but not with their personal lives. Although support systems for working female neurosurgeons are developing, they are insufficient and some women doctors do not know enough about these systems. In particular, proxies for maternity or child care leave are not available most of the time, and a systematic approach is urgently needed to address this problem. In comparison with other specialties, fewer female neurosurgeons are married, fewer have children, each have fewer children, and their work load is harder. Sufficient understanding and support for women neurosurgeons by their chiefs or peers is very important.

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Conflicts of Interest Disclosure

There is no conflict of interest to disclose for any of the authors.

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