

Physical assessment by Japanese community hospital nurses compared to that performed overseas: A cross-sectional study

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Abstract

Background: Japanese nurses may not be adequately trained to perform physical assessments compared to nurses overseas due to differences in accessibility to education; currently, research investigating this discrepancy is limited. This study investigated the current performance levels of Japanese community nurses in physical assessments and compared their performance to that of nurses overseas.

Methods: In this cross-sectional study, we examined the practical application of physical assessments conducted by nurses at a Japanese community hospital. We used a questionnaire based on one used in a similar prior study conducted overseas. The results were also compared with the overseas data. A chi-squared test and analysis of variance were used to analyze the variables in each question.

Results: We distributed the questionnaires to 171 nurses working in the hospital. The return rate was 97.6% (167 out of 171). There was no significant difference in the methods used to perform a physical assessment based on the number of years of experience. Compared to nurses overseas, Japanese community hospital nurses differed in one area of assessment: A physical assessment of the chest was more likely conducted via auscultation rather than inspection.

Conclusions: When Japanese community hospital nurses performed a physical assessment of patients, auscultation was more frequently implemented than inspection. This approach contrasts with nurses overseas, who were more likely to use inspection when performing physical assessment. Japanese community nurses should improve their skills related to inspection, as inspection is an important process in the recognition of early stages of emergency.

KEYWORDS

auscultation, community hospital, inspection, Japan, overseas, physical assessment

1 | BACKGROUND

Subjective and objective information is obtained from patients and their families through history-taking and physical assessments. Through physical assessments, nurses can understand the conditions of their patients and share patient information with other medical

professionals. Education on how to conduct a physical assessment started in Europe and North America and is spreading worldwide.¹ This education is provided in professional nursing schools and aims to train nurses for competency based on their subspecialty in nursing.²

Physical assessment education was introduced into the Japanese nursing education curriculum in the 1990s. Although this education

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has spread to nursing universities and general hospitals, it has not permeated into community hospitals yet. Some nurses have never officially studied how to perform physical assessments because they obtained their licenses before this aspect of nursing education was formally included in the nursing education curriculum.³ In reality, nurses may be able to learn how to perform physical assessments through clinical experience.⁴ Although learning how to perform physical assessments may depend on the clinical background of each nurse, there is no evidence of this in Japan.

Many nurses at community hospitals deal with various diseases, and in their workplaces, an effective physical assessment may be useful in improving patients' conditions.⁵ To establish an educational system for effective physical assessment, it is essential to provide a clear picture of the present state of the education provided on performing physical assessments to nurses at community hospitals. However, most Japanese studies regarding physical assessment have focused on students, not on clinical nurses.³

The Unnan City Hospital is located in Unnan City, Shimane Prefecture, Japan. Unnan City is located in the eastern part of Shimane Prefecture and shares its southern border with Hiroshima Prefecture. A survey conducted in 2015 revealed that the total population of Unnan City was 39 032 (consisting of 18 647 males and 20 385 females). Unnan City Hospital is the only public general hospital in Unnan City. As the Japanese population is aging, this city's medical profile is considered to be representative of that of rural Japan based on the population statistics of Japan. Our hospital's nursing competency may thus reflect the nursing competency in Japanese community hospitals in the future. Identifying the performance level of nurses in physical assessment may lead to a better understanding of the current state of nursing in rural areas in Japan. Assessing these performance levels can help establish the need to revise educational methods of physical assessment at community hospitals. Furthermore, by comparing this condition with those of foreign countries, the current state will be understood from various perspectives. This study aimed to determine the performance of nurses in terms of physical assessments at a Japanese community hospital and identify current rural approaches by comparing it with data from a foreign country where education on physical assessments has been efficiently established.

2 | MATERIALS AND METHODS

2.1 | Setting

At the time of the study, Unnan City Hospital had 281 beds comprising 160 acute care beds, 43 comprehensive care beds, 30 rehabilitation beds, and 48 chronic care beds. There were 14 medical specialties, and the nurse-to-patient ratio was 1:10 in acute care, 1:13 in comprehensive care, 1:15 in rehabilitation, and 1:25 in chronic care. The other nurses worked in the operating room, dialysis center, visiting nurse station, and health maintenance center.

2.2 | Study design and participants

This study was conducted using a cross-sectional survey with the participation of all the nurses employed at Unnan City Hospital. To conduct the survey, we utilized a questionnaire that evaluated the performance of physical assessments conducted by these nurses on patients. The study was carried out in June 2017. The participants were public health nurses, midwives, registered nurses, and semi-registered nurses. Participants who were absent from work during the period of the survey were excluded. The data collected from the questionnaires were compared with the findings of a previous study regarding the performance of physical assessments in a foreign country.

2.3 | Previous study on physical assessments performed by nurses in Italy

A quantitative survey on physical assessment techniques performed by Italian registered nurses was referred to for comparison in this study.⁶ This previous report was based on cross-sectional research that inquired about the performance of physical assessments by nurses using a 30-item questionnaire.

2.4 | Data collection

A validated questionnaire translated into Japanese was administered as a paper-based survey.⁶ The average level with which each skill was performed was measured using a six-point Likert scale, as follows: 0 = I do not know how to perform this technique; 1 = I know how to perform this technique, but it is not part of my clinical practice; 2 = I perform this technique rarely (a few times during my career); 3 = I perform this technique frequently in my clinical practice (every 2-5 times I work); and 5 = I perform this technique regularly in my clinical practice (every time I work). Data on age, gender, workplace, job, and years of clinical experience were also collected.

2.5 | Statistical analysis

Participants' background and performance rate for each physical assessment skill were analyzed as descriptive data. Furthermore, to investigate the effect of the difference in years of clinical experience on the status of implementation of physical assessments, analysis of variance was performed. For comparisons with data from the overseas study, the chi-squared test was conducted for each question on the performance of physical assessments. An analysis of variance was performed when comparing between multiple groups. Statistical analyses were performed using STATA 12 (StataCorp LP, College Station, TX).

2.6 | Ethical considerations

Data collected in this questionnaire survey were anonymized. In addition, we provided information on this questionnaire survey

through the nursing department of this hospital, and consent was provided in the form of a reply on receiving the questionnaire. The study protocol was approved by the Unnan City Hospital research ethics review committee (approval number 20170004).

3 | RESULTS

3.1 | Background data

Among the 171 participants, 167 (98%) were women; 66% of the participants were aged ≥ 40 years and 41% were >50 years. The duration of clinical experience was <5 years for 11.7%, 5-10 years for 7.6%, 11-20 years for 32.2%, 21-30 years for 25.2%, and >30 years for 23.4%.

In the previous overseas study, 49% of the participants in the cohort were aged >40 years and 14% were >50 years. The duration of clinical experience was ≤ 10 years for 39% of the cohort, 11-20 years for 26%, 21-30 years for 27%, and ≥ 31 years for 9% (Table 1).

3.2 | Physical assessment techniques evaluated and frequency of implementation

Of the 30 techniques evaluated in the questionnaire addressing physical assessments, 20 were "frequently" or "regularly" performed by most of the participants (mean score > 3 ; 8%-23% of participants gave a score of 0-1; Table 2). There were 18 techniques (mean score of 3; 8%-23% of participants gave a score of 0-1) that

were conducted several times a year. Techniques that were implemented approximately once a week (mean score of 4; 8%-11% of participants gave a score of 0-1) were "Inspect overall skin color," "Evaluate breathing effort," "Palpate extremities for temperature," and "Inspect and examine stool." Techniques that the participants knew how to perform but did not know how to implement (mean score of 1; 21%-40% of participants gave a score of 0-1) included "Inspect muscles and extremities for size and symmetry," "Assess muscle strength," "Evaluate face for movement and sensation," "Inspect chest shape," "Inspect the spine," "Palpate extremities for tenderness," "Auscultate heart sounds," and "Observe range of motion of joints." There were no techniques that the participants did not know how to perform.

3.3 | Performance frequency by years of clinical experience and type of nurse

Among the 30 techniques evaluated in the questionnaire on performing physical assessments, the number of techniques that participants knew how to perform but not implement (mean score of ≤ 2) was 8 for participants with <5 years of clinical experience, 5 for those with <10 years' experience, 7 for those with <20 years' experience, 7 for those with between 20 and 30 years' experience, and 9 for ≥ 30 years' experience. Among the 30 techniques evaluated, the number of techniques that were implemented approximately several times a year or once a week (mean score of ≥ 3) was 22 for participants with <5 years of clinical experience, 25 for those with ≥ 5 years but <10 years' experience, 23 for those with ≥ 10 years but <20 years' experience, 19 for those with ≥ 20 years but <30 years' experience, and 21 for those with ≥ 30 years' experience. There was no significant difference in the performance frequency of physical assessments due to differences in years of clinical experience for most techniques (Table 2). However, there was a statistically significant difference in the technique "Palpate and inspect capillary refill" between the groups with 11-20 and 21-30 years of experience. Although not statistically significant, in the same technique, there was a difference between the groups with <5 , 5-10, and 11-20 and >30 years of experience. This may be due to the differences in physical assessment education as because physical assessment education was introduced in Japan in the last 20 years. There were no significant differences in the techniques used among the different types of nurses because the number of nurses in each category was relatively small compared to the number of registered nurses.

3.4 | Comparison between the results of this study and those of the previous study

The techniques with significantly higher frequency of implementation in this study were "Palpate and inspect capillary refill," "Auscultate lung sounds," "Auscultate abdomen for bowel sounds," "Auscultate heart sounds," "Palpate abdomen for tenderness and distension," "Palpate extremities for tenderness," "Assess for PERRLA," and "Assess using Glasgow Coma Scale."

TABLE 1 Characteristics of the participants

Variables	Japan		Italy	
	n = 171	%	n = 1182	%
Gender				
Male	4	2.3	269	22.8
Female	167	97.6	913	77.2
Age, years				
20-30	17	9.9	294	24.9
31-40	40	23.4	303	25.6
41-50	44	25.7	423	35.8
>50	70	40.9	162	13.7
Type of nurse				
Public health nurse	5	2.9		
Midwife	8	4.7		
Registered nurse	142	83.0		
Semiregistered nurse	16	9.4		
Number of years of experience				
<5	20	11.7	291	24.6
5-10	13	7.6	165	13.9
11-20	55	32.2	303	25.6
21-30	43	25.2	315	26.7
>30	40	23.4	108	9.1

TABLE 2 Performance of each physical assessment technique according to the number of years of clinical experience

Code	Skill	No. of years of clinical experience												P-value	Post hoc
		<5 (n = 20)		5-10 (n = 13)		11-20 (n = 55)		21-30 (n = 43)		≥30 (n = 40)					
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD				
1	Inspect overall skin color	4.05	1.85	4.23	1.01	4.33	1.26	3.70	1.81	3.83	1.66	0.314			
2	Evaluate breathing effort	3.85	1.95	4.38	1.04	4.33	1.33	3.79	1.78	4.03	1.69	0.459			
3	Assess mental status and level of consciousness	3.75	2.02	4.00	1.53	4.27	1.31	3.63	1.85	4.13	1.65	0.358			
4	Inspect and palpate extremities for edema	3.85	1.60	4.23	0.93	4.13	1.17	3.53	1.65	3.95	1.45	0.282			
5	Palpate extremities for temperature	4.15	1.66	4.23	1.01	4.29	1.10	3.53	1.61	3.95	1.50	0.108			
6	Palpate and inspect capillary refill	4.05	1.67	4.23	1.10	4.11	1.36	3.12	1.79	3.48	1.78	0.017	11-20 > 21-30		
7	Palpate distal pulses for circulation	3.35	1.73	4.08	0.95	3.53	1.39	2.98	1.52	3.25	1.64	0.161			
8	Inspect wounds	3.75	1.55	3.92	1.12	3.67	1.55	3.49	1.75	3.65	1.56	0.886			
9	Auscultate lung sounds	3.90	1.59	4.08	1.12	4.07	1.36	3.42	1.65	3.53	1.65	0.190			
10	Auscultate abdomen for bowel sounds	3.90	1.59	3.92	1.19	4.02	1.19	3.37	1.65	3.55	1.66	0.230			
11	Inspect abdomen	3.75	1.52	3.92	1.19	3.76	1.37	2.98	1.81	3.45	1.72	0.109			
12	Auscultate heart sounds	2.70	1.53	3.15	1.28	2.91	1.58	2.58	1.72	2.80	1.70	0.785			
13	Inspect skin lesions	3.80	1.64	3.92	1.12	3.82	1.48	3.37	1.70	3.63	1.48	0.617			
14	Inspect extremities for skin color and hair growth	3.65	1.73	3.85	1.14	3.69	1.65	3.23	1.78	3.20	1.74	0.451			
15	Inspect external eyes	2.55	1.79	3.38	1.66	3.27	1.66	2.95	1.91	2.80	1.77	0.443			
16	Evaluate speech	3.30	1.98	3.08	1.61	3.53	1.76	3.09	2.03	3.08	1.82	0.735			
17	Palpate abdomen for tenderness and distension	3.65	1.60	3.92	1.12	3.87	1.23	3.23	1.73	3.48	1.75	0.286			
18	Observe range of motion of joints	2.90	1.94	3.00	1.73	3.27	1.53	2.86	1.63	2.58	1.62	0.383			
19	Inspect chest shape	2.95	1.88	2.31	1.55	2.38	1.63	2.42	1.75	2.08	1.75	0.475			
20	Evaluate face for movement and sensation	2.50	1.91	2.23	1.83	2.47	1.64	2.33	1.70	2.10	1.89	0.866			
21	Palpate extremities for tenderness	3.00	1.86	3.38	1.39	2.89	1.61	2.67	1.66	2.45	1.84	0.420			
22	Assess muscle strength	2.90	1.83	2.61	1.50	2.80	1.51	2.51	1.72	2.43	1.84	0.758			
23	Inspect muscles and extremities for size and symmetry	2.30	2.00	2.46	1.71	2.53	1.51	2.19	1.76	2.15	1.83	0.822			
24	Assess hearing on the basis of conversation	3.80	1.85	3.54	1.56	4.02	1.71	3.42	1.89	3.93	1.58	0.489			
25	Inspect and examine stool	4.40	1.43	4.15	1.21	4.09	1.34	3.77	1.57	3.90	1.72	0.563			
26	Assess gait	3.95	1.43	3.92	1.19	3.89	1.55	3.53	1.72	3.58	1.58	0.695			
27	Assess for PERRLA	3.10	1.52	3.62	1.12	3.29	1.26	3.02	1.52	3.05	1.45	0.635			
28	Assess using Glasgow Coma Scale	3.95	1.76	3.54	1.33	3.75	1.48	3.28	1.79	3.20	1.65	0.299			
29	Inspect the oral cavity	4.05	1.47	3.62	1.45	3.73	1.51	3.05	1.77	3.33	1.85	0.142			
30	Inspect the spine	2.15	2.03	2.08	1.66	2.07	1.50	2.14	1.73	2.03	1.75	0.998			

Other techniques that had a significantly higher level of implementation than in the previous study were “Inspect overall skin color,” “Evaluate breathing effort,” “Assess mental status and level of consciousness,” “Inspect wounds,” “Inspect skin lesions,” “Inspect extremities for skin color and hair growth,” “Inspect external eyes,” “Evaluate speech,” “Observe range of motion of joints,” “Inspect chest shape,” and “Inspect muscles and extremities for size and symmetry” (Table 3).

“Auscultate lung sounds” and “Auscultate abdomen for bowel sounds” were carried out approximately several times a year in this study (mean score of >3; 9% of participants gave a score of 0-1), but in the previous study, these were the techniques that nurses knew how to perform but did not perform for various reasons (mean score of 1; 52%-58% of participants gave a score of 0-1).

“Assess mental status and level of consciousness,” “Inspect wounds,” “Inspect skin lesions,” “Inspect extremities for skin color and hair growth,” and “Evaluate speech” were carried out approximately several times a year by the participants in this study (mean score of >3; 12%-22% of participants gave a score of 0-1), but in the previous study, these were the techniques that were conducted once a week (mean score of 4; 2%-7% of participants gave a score of 0-1).

“Observe range of motion of joints,” “Inspect chest shape,” and “Evaluate face for movement and sensation” were the techniques that had been carried out several times during the participants' careers in this study (mean score of 2; 27%-34% of participants gave a score of 0-1), but were conducted several times a year (mean score of 3; 7%-15% of participants gave a score of 0-1) and once a week

TABLE 3 The performance of each physical assessment technique in Japan and overseas

Code	Skill	Japan			Italy			P value
		Mean	SD	% of 0-1 scores	Mean	SD	% of 0-1 scores	
1	Inspect overall skin color	4.01	1.57	11.11	4.51	1.04	3.7	<0.01
2	Evaluate breathing effort	4.07	1.6	11.11	4.47	0.98	3.1	<0.01
3	Assess mental status and level of consciousness	3.99	1.65	12.87	4.67	0.79	2	<0.01
4	Inspect and palpate extremities for edema	3.91	1.41	8.19	3.84	1.28	7.1	0.52
5	Palpate extremities for temperature	4	1.42	8.19	3.84	1.36	8.7	0.15
6	Palpate and inspect capillary refill	3.71	1.64	12.87	2.4	1.71	34	<0.01
7	Palpate distal pulses for circulation	3.35	1.51	14.62	3.43	1.51	14.6	0.52
8	Inspect wounds	3.68	1.57	11.7	4.29	1.25	7	<0.01
9	Auscultate lung sounds	3.76	1.53	9.36	1.42	1.54	58.3	<0.01
10	Auscultate abdomen for bowel sounds	3.73	1.49	9.36	1.66	1.53	52	<0.01
11	Inspect abdomen	3.5	1.6	14.62	3.56	1.53	13.3	0.63
12	Auscultate heart sounds	2.8	1.61	23.39	1.58	1.59	54.5	<0.01
13	Inspect skin lesions	3.67	1.53	12.28	4.58	0.87	2	<0.01
14	Inspect extremities for skin color and hair growth	3.47	1.68	16.96	4.46	0.98	2.6	<0.01
15	Inspect external eyes	3.01	1.77	23.39	3.77	1.46	10.7	<0.01
16	Evaluate speech	3.25	1.85	22.22	4.47	1.02	3.2	<0.01
17	Palpate abdomen for tenderness and distension	3.6	1.54	13.45	3.18	1.64	19	<0.01
18	Observe range of motion of joints	2.94	1.64	21.05	3.48	1.56	14.9	<0.01
19	Inspect chest shape	2.38	1.71	34.5	3.96	1.29	6.7	<0.01
20	Evaluate face for movement and sensation	2.33	1.75	35.09	4.15	1.23	5.4	<0.01
21	Palpate extremities for tenderness	2.78	1.69	26.9	2.46	1.65	31.4	0.02
22	Assess muscle strength	2.64	1.67	26.32	2.73	1.56	25	0.48
23	Inspect muscles and extremities for size and symmetry	2.32	1.72	35.67	2.74	1.69	27.5	<0.01
24	Assess hearing on the basis of conversation	3.78	1.73	14.04	3.9	1.37	7.9	0.3
25	Inspect and examine stool	4.01	1.49	9.36	3.99	1.41	10.2	0.86
26	Assess gait	3.74	1.56	10.53	3.96	1.35	8.5	0.05
27	Assess for PERRLA	3.17	1.39	12.28	2.62	1.64	29.4	<0.01
28	Assess using Glasgow Coma Scale	3.51	1.63	12.86	2.7	1.79	33	<0.01
29	Inspect the oral cavity	3.49	1.67	14.62	3.43	1.51	14.9	0.63
30	Inspect the spine	2.09	1.68	40.35	1.98	1.58	43.3	0.39

(mean score of 4; 5.4% of participants gave a score of 0-1) in the previous study.

4 | DISCUSSION

This study clarifies the performance of physical assessments conducted by nurses at a community hospital in Japan. Overall, we found no difference in the implementation of methods used depending on the age and number of years of clinical experience of the nurses. By comparing our data to that of the performance of physical assessments by nurses overseas, the competency of community hospital nurses in Japan may be measured relative to that of nurses overseas.

In this study, there were no differences in the performance of most physical assessments based on the nurses' number of years of clinical experience, and similar results were suggested in a study conducted at a tertiary medical institution in Japan.⁷ This may indicate that physical assessment skills can be acquired through not only nursing education but also clinical experience. Japanese nursing education on physical assessment methods was strengthened with the revised curriculum in 2009 as an essential part of basic nursing education.³ Physical assessment skills are often considered basic skills of nursing, and even in basic nursing education, these skills are often taught relatively early.⁸ Currently, teaching materials on physical assessment and the use of simulated patients and paired student exercises that simulate clinical conditions are often adopted as educational methods.

In this study, the groups with <5 and 5-10 years of experience had the highest scores in 8 and 18 items, respectively, and the groups with 21-30 and >30 years of experience had the lowest scores in 19 and 10 items, respectively. Though not statistically significant, these differences may be due to the formal education provided regarding physical assessments in nursing. Skills required to perform physical assessments involving inspection tend to be especially difficult to acquire; these can be supplemented by formal education.⁴ In addition, mastering physical assessment skills may not be sufficiently achieved by classroom study alone.^{8,9} Moreover, there was no clear correlation between the performance of physical assessments by nurses and the number of years of clinical experience in this study. Local hospital nurses are rich in clinical experience,⁹ and it is thought that in the future, conducting physical assessment education based on clinical experience will lead to an improvement in the quality of patient care.

Through this study, it is clear that community hospital nurses in Japan tended to focus more on auscultation compared to nurses in other countries, who focused on inspection. In this study, the physical assessment techniques where the frequency of implementation was significantly higher for a Japanese community hospital included techniques such as "Auscultate lung sounds" and "Auscultate abdomen for bowel sounds." Previous studies showed that there was a correlation between knowledge and physical assessment skills, and frequency of implementation and necessity.⁶ Techniques with a strong correlation in these parameters included "Auscultate

lung sounds," "Inspect and palpate extremities for edema," and "Auscultate abdomen for bowel sounds" and are necessary for every area of nursing practice. "Auscultate heart sounds" was also slightly less frequently implemented in this study, but it was implemented at a significantly higher frequency by nurses in Japan than nurses overseas.

In addition, there was a characteristic tendency to emphasize on auscultation in Japan. Although physical assessments involving auscultation may be regarded as advanced competencies overseas,⁷ auscultation of the lung, abdomen, and heart is a common nursing practice in Japanese community hospitals. These techniques are frequently performed in intensive care units or at nursing homes, where nurses are independently involved in decision making.¹⁰ Basic nursing education and cultures differ worldwide, and the results of this study show that the implementation of techniques necessary to practice nursing also differs. As teaching physical assessments in formal nursing courses in Japan was only started eight years ago, it is also possible that most of the Japanese community hospital nurses learned how to conduct physical assessments based only on their own experience. This may lead to the less frequent performance of techniques involving inspection, which are firmly taught in the educational course of physical assessments. The ability of Japanese community nurses to conduct inspection might gradually improve by following the present curriculum.

Among the physical assessment techniques used overseas, frequently implemented techniques were "Assess mental status and level of consciousness," "Inspect skin lesions," "Inspect overall skin color," "Evaluate speech," "Evaluate breathing effort," "Inspect extremities for skin color and hair growth," "Inspect wounds," and "Evaluate face for movement and sensation." These techniques do not require special instruments, are based on a nurse's vision, and are considered basic methods that are comparatively easy to implement.^{1,11} Formal physical assessment education for nurses has already been established overseas, and the nurses can acquire basic techniques before becoming professionals, which may lead to the effective performance of inspection as a fundamental stage of physical assessment. It is also possible that nurses overseas focus more on the visual aspects of inspection during their physical assessment compared to nurses working at community hospitals in Japan.

This study revealed that community hospital nurses in Japan frequently conducted physical assessments mainly related to auscultation. To recognize changes in the conditions of their patients at early stages, it is essential to observe the respiratory state, pulse rate and rhythm, level of consciousness, vocalization, skin, and presence of trauma.^{12,13} Nurses at community hospitals in Japan also need to strengthen these physical assessment techniques.

A limitation of our study was that this questionnaire examined the frequency of implementation of physical assessment techniques according to the perception of each nurse. However, this may not objectively and accurately assess the knowledge and skills of each nurse for each physical assessment technique. The participants of this study were community hospital nurses from various kinds of

wards. Their performance may depend on the types of patients in the wards with diseases specific to particular organ systems. In this hospital, all of the wards had to accommodate patients with common diseases such as pneumonia, pyelonephritis, stroke, heart failure, and several lung diseases, which may be similar to the situation in other community hospitals located in rural areas. Thus, these study results may apply to other Japanese community hospital settings. However, since this survey was conducted only among nurses working in one Japanese community hospital, the results may be biased. Thus, further studies should be conducted in various Japanese community hospitals; this may lead to a clearer understanding of the performance of Japanese community hospital nurses.

5 | CONCLUSION

Physical assessments by Japanese community hospital nurses were frequently implemented with a focus on auscultation, which may have arisen specifically due to the nature of the Japanese nursing education curriculum. The lack of effective education on how to conduct physical assessments in Japan may have led to poor performance of techniques involving inspection compared to the performance of overseas nurses. To improve the physical assessment skills of Japanese community hospital nurses effectively, there should be continued improvements in nursing education with regard to physical assessments, and continued nursing education should be provided to registered nurses in community hospitals.

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CONFLICT OF INTEREST

The authors have stated explicitly that there are no conflicts of interest in connection with this article.

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