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Differences in code status practice patterns among emergency clinicians working in Japan and the United States

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ABSTRACT

Objective: This study aimed to examine self-reported code-status practice patterns among emergency clinicians from Japan and the U.S.
Methods: A cross-sectional questionnaire was distributed to emergency clinicians from one academic medical center and four general hospitals in Japan and two academic medical centers in the U.S. The questionnaire was based on a hypothetical case involving a critically ill patient with end-stage lung cancer. The questionnaire items assessed whether respondent clinicians would be likely to pose questions to patients about their preferences for medical procedures and their values and goals.
Results: A total of 176 emergency clinicians from Japan and the U.S participated. After adjusting for participants' backgrounds, emergency clinicians in Japan were less likely to pose procedure-based questions than those in the U.S. Conversely, emergency clinicians in Japan showed a statistically higher likelihood of asking 10 out of 12 value-based questions.
Conclusion: Significant differences were found between emergency clinicians in Japan and the U.S. in their reported practices on posing procedure-based and patient value-based questions.
Practice implications: Serious illness communication training based in the U.S. must be adapted to the Japanese context, considering the cultural characteristics and practical responsibilities of Japanese emergency clinicians.

1. Introduction

A code status conversation is a crucial process of communication between healthcare professionals, patients, and their families to decide on medical interventions during life-threatening events [1]. A clear understanding of patients' wishes and values can enable personalized

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care that aligns with their preferences, ultimately enhancing their quality of life toward the potential end of their lives [2]. Furthermore, such understanding has been reported to encourage more patient-centered decision-making, prevent potentially unnecessary procedures and interventions, and lead to shorter hospital stays and reduced costs [3]. Emergency clinicians in the United States (U.S.) benefit from several evidence-based communication training programs for serious illnesses [4–6].

In this paragraph Advance Care Planning (ACP) and code status practices in the U.S. are discussed and compared to the situation in Japan. A 2016 questionnaire reported that only 2.7 % of older adults had discussed ACP in detail with their families or healthcare providers in Japan, whereas 45.6 % of older adults in the U.S. held this discussion in 2017 [7,8]. This discrepancy may be influenced by cultural attitudes toward end-of-life care decisions, where Japanese individuals tend to entrust others with taking such decisions while generally avoiding thoughts about death [9]. As Japan is an aging country, emergency clinicians working in Japan may encounter more older adults with serious illnesses, which increases the need for engaging in code status conversations with patients who lack prior ACP [10]. Despite the importance of code status conversations, emergency clinicians in Japan have limited learning opportunities regarding these types of discussions [11,12]. Consequently, end-of-life patients may receive costly and ineffective medical treatment that does not align with their values and goals [13]. This places a significant burden not only on patients and their families but also on healthcare providers, as reported outcomes from end-of-life care often lead to statements from families expressing their dissatisfaction with results, such as, “this is not what we wanted”[14]. The Japanese Association for Emergency Medicine has noted that such outcomes underscore the need for emergency physicians (EPs) to also learn end-of-life care, reflecting the growing imperative for training in this field [15].

Owing to the lack of training for evidence-based serious illness communication tailored to emergency clinicians in Japan, they express a strong need and desire for it [11]. These training programs could be imported to Japan from the U.S. However, cultural differences between the two countries may impact how such conversations are conducted. For example, it was reported that Japanese individuals avoid contemplating death and conversations thereof to alleviate patients’ suffering [16]. Further, Japanese patients accept physician’s opinions generally without questions, compared to the U.S. patients who generally question doctors’ opinions extensively [17]. This study aimed to determine potential differences in code status conversation practices between emergency clinicians in Japan and the U.S.

2. Methods

2.1. Study design and settings

This was a multicenter, scenario-based questionnaire study developed to investigate variations in code status documentation between Japan and the U.S. The term "conversations" in this context refers to theoretical discussions between emergency clinicians and a simulated patient, which shows differences in decision-making and communication style from the condition in which actual patients are involved [18]. The questionnaire used in the present study was previously used in two large, urban, academic medical centers in Boston, Massachusetts, between November 2021 and January 2022 as part of a study conducted by Prachanukool et al. Medical centers, with 1059 beds and 100,000 annual ED visits and with 793 beds and 57,000 annual ED visits, are among many elite and highly prestigious institutions in the U.S. These centers are renowned for high standards in medical care and advanced research capabilities, reflecting a level of excellence recognized in international contexts. Prachanukool et al. compared the impact of prior communication training on the differences in code-status conversations. All findings from the U.S. have been incorporated in the present study based on the work of Prachanukool et al. [18]. We chose samples from one university hospital and five general hospitals in urban and rural areas in the Kanto region of Japan. All hospitals that participated in this study had $>$ 300 beds. We recruited these six sites where nurse practitioners (NPs) were working in the emergency departments (ED) because the system was introduced and implemented recently and the number of NPs in Japan is limited [19]. This study was conducted based on the Checklist for Reporting of Survey Studies (CROSS) [20] and was approved by the Ethics Committee of (blinded for review) (Approval Number: XXXX).

We included EPs and NPs with at least three years of ED experience. In the U.S., the training period for EPs is either three or four years, whereas in Japan, it is three years [21,22]. In addition, in Japan, the framework for NP training has not yet been clearly defined in the context of emergency specialization [23]. This contrasts with the U.S. framework for training NPs, where the training period can range from two to four years depending on the program, and specialized emergency care programs are available [24].

Participants who did not respond to the questionnaire were excluded from the study. The seven-page questionnaire we sent to each research site was voluntary and de-identified. Each hospital’s investigator distributed the questionnaires to the respondents. Prior to administering the questionnaire, each site investigator verbally explained the study material to the participating clinicians. Verbal consent was obtained at the time of recruitment. The study was conducted between October 2022 and December 2022.

2.2. Instruments

The survey, designed by U.S. investigators, consisted of 27 questions divided into two sections (Supplement 1). The questionnaire was developed after an extensive review of relevant literature and by leveraging the clinical expertise of EPs and palliative care specialists. The drafting of the survey items was undertaken by the study team at Brigham and Women’s Hospital and Harvard Medical School. Prior to the study, the initial instrument was pilot tested for clarity and appropriateness by five EPs and two palliative medicine physicians, to whom the instrument was distributed and who provided their feedback [18]. To ensure linguistic accuracy and cultural relevance, we conducted forward and backward translations between English and Japanese. (Supplement 2). This rigorous translation process aimed at maintaining the integrity and applicability of the survey items across both linguistic and cultural contexts. During the questionnaire translation, several Japanese clinicians expressed concerns about the direct translation of the question, “To determine this patient’s code status, how likely would you ~.” They suggested it would be more appropriate to replace the word “how likely” with “how necessary,” particularly in the context of Mr. B’s case. This might be caused by the cultural differences between the U.S. individualistic response and the Japanese group-oriented approach [17]. Consequently, as a precaution, we conducted a test-retest to compare the responses regarding “necessary” versus “likely” for Japanese clinicians and to verify whether there were any problems in the translation process. The results showed a perfect match for 76.1 % of the responses, one difference for 20.0 %, two differences for 1.7 %, and three or more differences for 2.2 % (refer to Supplement 3). This indicates a sufficiently consistent trend and confirms that there were no significant problems.

The first section of the questionnaire described a typical ED case involving a critically ill patient (Mr. B) with Stage 4 non-small cell lung cancer and chronic obstructive pulmonary disease, who was on home oxygen and had a prognosis of $<$ 1 year. The patient required emergency care because of worsening symptoms. After reviewing the case, the participants completed the questionnaire which asked how likely it was that they would ask family members specific questions, including procedure-based items (eight items; e.g., “Would your father want to be on the breathing machine?”) and value-based items (12 items, e.g.,

Table 1
Emergency clinicians' characteristics and knowledge.

Variables	Emergency clinicians working in Japan (n = 84)	Emergency clinicians working in the U.S. (n = 92)	p value
Role*			< 0.01
Physician, No. (%)	58 (69.1)	82 (89.1)	
Nurse practitioner, No. (%)	26 (31.0)	10 (10.9)	
Years in practice			< 0.01
0–5 years, No. (%)	28 (33.3)	11 (12.0)	
6–10 years, No. (%)	14 (16.7)	31 (33.7)	
11–15 years, No. (%)	21 (25.0)	11 (12.0)	
16–20 years, No. (%)	9 (10.7)	18 (19.6)	
21+ years, No. (%)	12 (14.3)	21 (22.8)	
Frequency of verbally determining code status while providing clinical care			< 0.01
< 1 time every two months, No. (%)	29 (34.5)	26 (28.3)	
1 time every 1–2 months, No. (%)	15 (17.9)	26 (28.3)	
1–2 times every month, No. (%)	16 (19.0)	19 (20.7)	
>2 times per every month, No. (%)	24 (28.6)	18 (22.7)	
Prior training in palliative care or communication skills for end-of-life care			< 0.01
Never, No. (%)	52 (61.9)	12 (13.0)	

* The training period for emergency physicians and the nurse practitioner training in emergency specialization exhibit notable differences between the U.S. and Japan. In the U.S., emergency physicians undergo training that lasts either three or four years, whereas in Japan, the training period is uniformly three years. Furthermore, while the U.S. has a well-defined training framework for NPs in emergency care, where the duration ranges from two to four years depending on the program and includes specialized emergency care programs, Japan has not yet clearly defined its framework for NP training in this specialization.

"What would be important to your father if the time was too short?"). All questions were scored on a 5-point Likert scale, ranging from "very unlikely to ask" (1) to "very likely to ask" (5), and "never ask" (1) to "always ask" (5).

In the second section of the questionnaire, we asked participants about their demographic information (occupational role and clinical experience after graduating from professional schools), the estimated number of code status conversations they conduct per month, and their prior training in palliative care.

2.3. Primary data analysis

Data analyses were conducted using Stata software, Version 15.1 (StataCorp LLC, College Station, TX, USA). The baseline characteristics of the participants were summarized using descriptive statistics. Data were organized categorically into two groups (Japan vs. the U.S.) and Fisher's exact test was used to analyze categorical data and associations between demographic characteristics and conversation components reported by emergency clinicians. Using logistic regression to control confounding factors, we combined the ratings of "very likely to ask" and "somewhat likely to ask" and grouped them together. We grouped "very unlikely to ask," "somewhat unlikely to ask," and "neutral" separately. Regarding Q 3.1 and 3.2, we combined the ratings of "always ask" and "very frequently ask" and grouped them together, while grouping "never ask," "very infrequently ask," and "sometimes" separately [18].

We investigated the association between participants' experiences and options using a multiple logistic regression analysis after adjusting for covariates. We included predetermined variables in the multivariate models based on clinical plausibility and the bivariate analysis results if the individual p-value was < 0.25 [25]. To assess the collinearity among the questionnaire items, variance inflation factors (VIF) were calculated. The data were considered free from multicollinearity if the VIF for each independent variable was < 10.

Additionally, as a sensitivity analysis, we combined the ratings of "very likely to ask," "somewhat likely to ask," and "neutral"; grouped "very unlikely to ask" and "somewhat unlikely to ask" separately; and conducted a multivariate analysis. For Q 3.1 and 3.2, we grouped the responses of "always ask" and "very frequently ask" together, while grouping "never ask," "very infrequently ask," and "sometimes" separately. Statistical significance was set at $p < 0.05$.

3. Results

3.1. Characteristics of study participants

During the study period, 176 emergency clinicians (84 in Japan [58 EPs and 26 NPs] and 92 in the U.S. [82 Eps and 10 NPs]) completed the questionnaire. The overall response rates were 87 % and 71 % in Japan and the U.S., respectively. Table 1 shows the emergency clinicians' background information.

The bivariate analysis showed significant differences in participants' occupational roles, years of practice in clinical medicine, frequency of verbally determining the code status while providing clinical care, and prior training in palliative care or communication skills in end-of-life care. The frequency of emergent code status conversations was much lower among emergency clinicians working in Japan. The analysis of prior training experience showed that emergency clinicians working in Japan had less experience in palliative-care or communication-skills training than their counterparts in the U.S. (emergency clinicians working in Japan = 32 [38.1 %] and the U.S. = 80 [86.7 %], $p < 0.01$).

3.2. Bivariate analysis

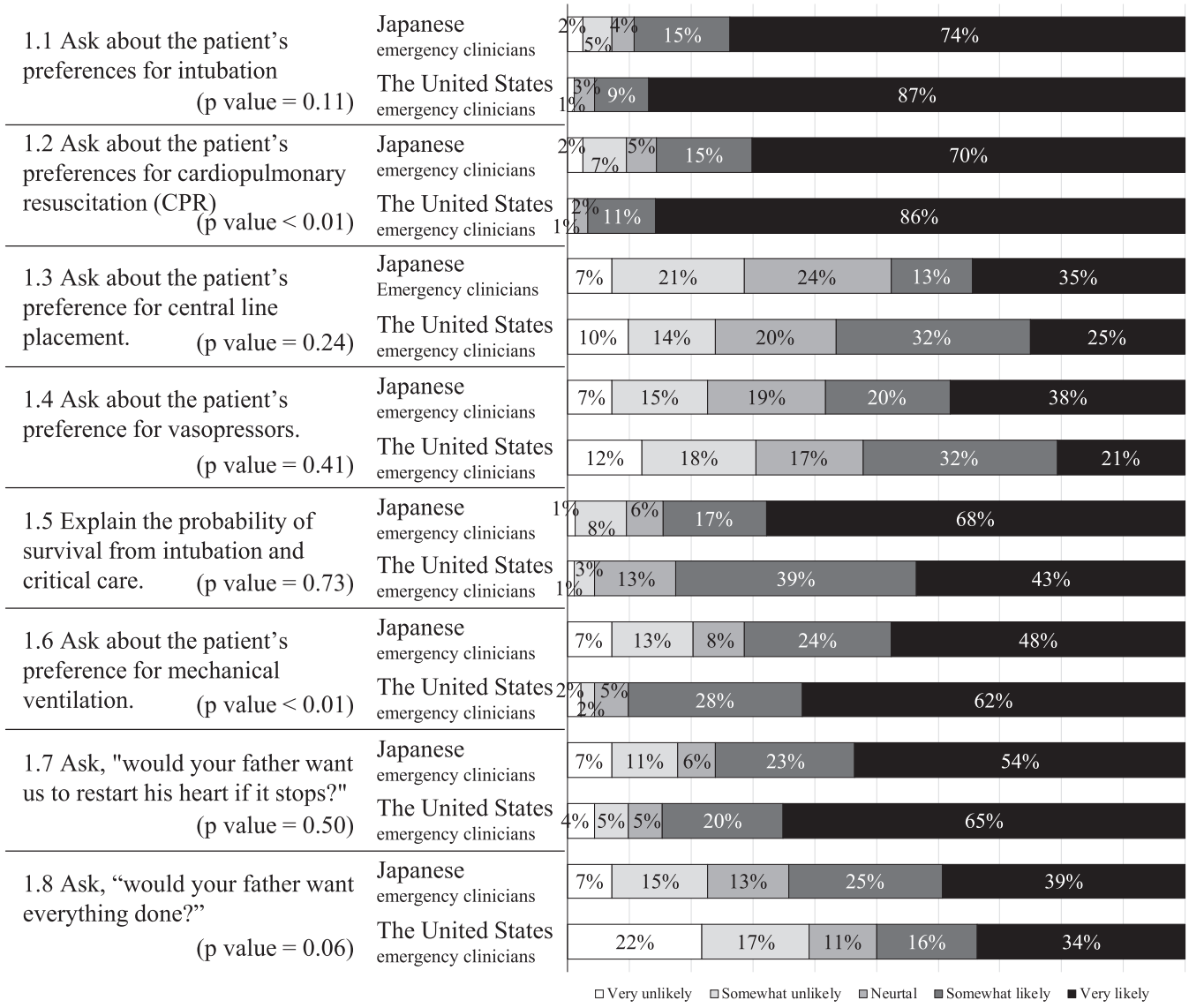
Table 2 shows the bivariate analysis results of procedure-based and patient value-based questions. **In the procedure-based questions, emergency clinicians working in the U.S. were significantly more likely to respond positively to Q 1.2 and Q 1.6 compared to those in Japan (see** Table 2**).**

Conversely, as shown in Table 3, emergency clinicians in Japan had significantly higher positive response rates than their counterparts in the U.S. on the 11 value-based questions (Q 2.1, 2.2, 2.3, 2.4, 2.5, 2.7, 2.8, 2.9,2.10, 3.1, and 3.2) (see Table 3).

3.3. Multivariate analysis

For the multivariate analysis, we adjusted for the participants' role, the year of their clinical medicine practice, the frequency of verbally determining the code status while providing clinical care, and their prior training in palliative care or communication skills in end-of-life care. The VIF in the multicollinearity diagnostic test in the linear regression assessed collinearity among the independently related variables. None

Table 2
Results of procedure-based components of code status conversations among emergency clinicians working in Japan and the U.S.



of the variables showed collinearity. In the section pertaining to procedure-based questions (Table 4), emergency clinicians working in Japan showed a significantly lower adjusted odds ratio for two questions (Q 1.3 and 1.6) than their counterparts in the U.S.

Regarding the questions meant to assess patient values (Table 5), emergency clinicians working in Japan showed a higher adjusted likelihood of posing 10 out of 12 questions. Emergency clinicians in Japan were significantly more likely to pose Q 2.1 (adjusted OR = 7.48, 95 % CI = 1.41– 39.79), 2.3 (adjusted OR = 13.04, 95 % CI = 3.60–47.27), 2.5 (adjusted OR = 8.17, 95 % CI =3.50–19.07), 2.7 (adjusted OR = 9.19, 95 % CI = 3.98–21.23), and 2.8 (adjusted OR = 18.05, 95 % CI = 7.06–46.14) compared to those in the U.S. The frequency of posing questions to the patients or surrogates (Q 3.1) and the patient's primary outpatient clinician (Q 3.2) was higher among emergency clinicians working in Japan (adjusted OR = 6.11, 95 % CI = 7.71–13.8; and 4.89, 95 %CI = 2.24–10.44, respectively).

3.4. Sensitivity analysis

A sensitivity analysis showed no significant differences in one of the two items in the procedure-related questions (patient's preference for central line placement: adjusted OR = 0.75, 95 % CI = 0.30–1.64) and in two out of 10 items in the patients' value questions (daughter's understanding of illness: adjusted OR= 2.58, 0.33–19.99; the baseline function of the patients: adjusted OR= 2.85, 0.58–14.18) (Supplement 4). No items showed significant differences, and the overall data trend remained similar to that of the original.

4. Discussion and conclusion

4.1. Discussion

Our study used a questionnaire based on a hypothetical case scenario to investigate differences between emergency clinicians in Japan and the U.S. in code status conversations. Compared to emergency clinicians in Japan, their counterparts in the U.S. emphasized questions related to

Table 3
Results of patients' value-based components of code status conversations among emergency clinicians working in Japan and the U.S.

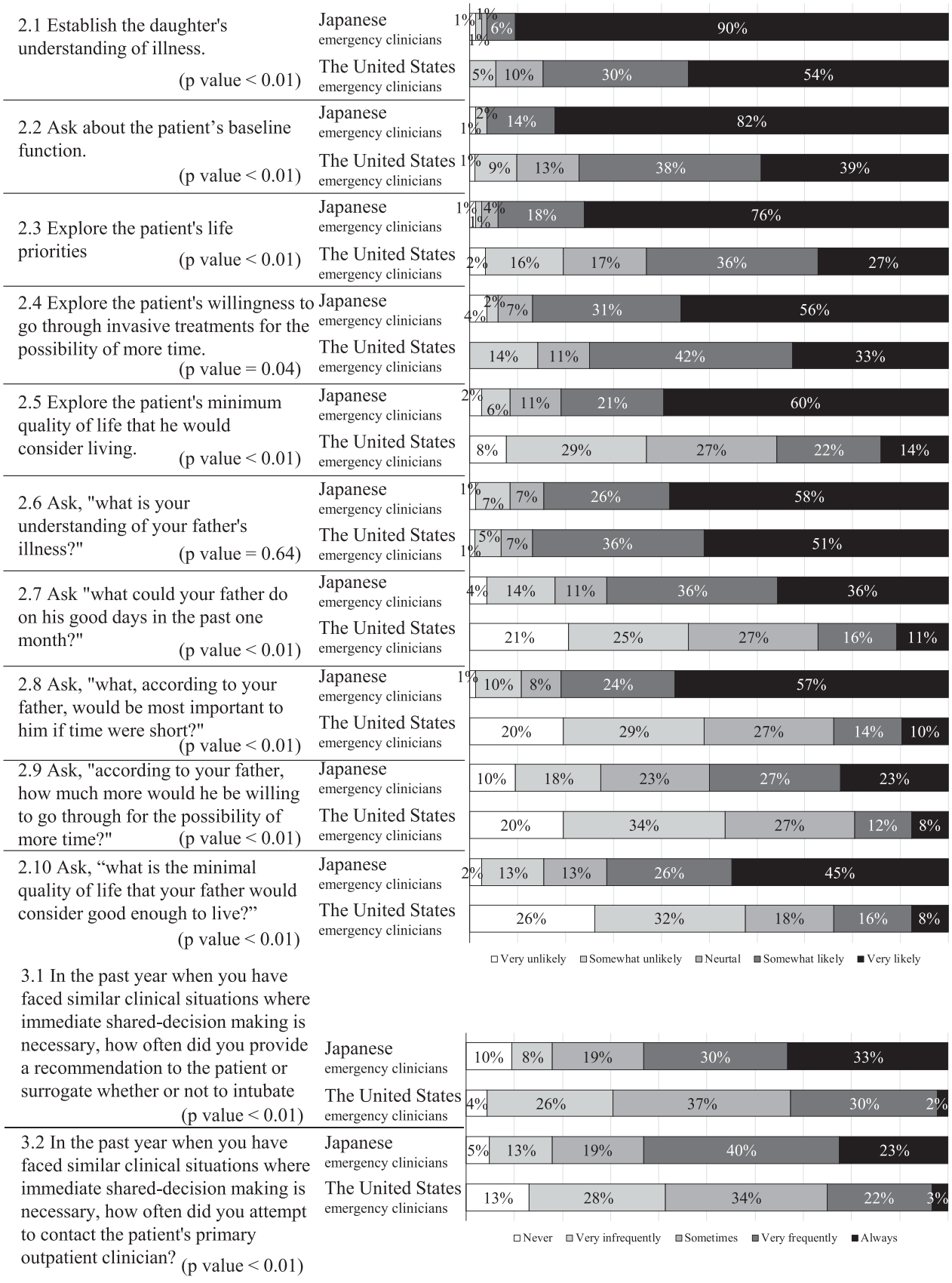


Table 4
The odds ratio for the procedure-based components of code status conversations among emergency clinicians working in Japan compared to those in the U.S. using multivariate analyses. (Reference group: emergency clinicians working in the U.S.).

	Adjusted OR	95 % CI of OR	p value
1.1 Ask about the patient's preference for intubation	0.34	0.09–1.35	0.13
1.2 Ask about the patient's preference for cardiopulmonary resuscitation (CPR)	0.28	0.06–1.22	0.09
1.3 Ask about the patient's preference for central line placement	0.47	0.22–0.99	0.04
1.4 Ask about the patient's preference for vasopressors	0.86	0.42–1.75	0.67
1.5 Explain the probability of survival from intubation and critical care	1.41	0.53–3.73	0.49
1.6 Ask about the patient's preference for mechanical ventilation	0.27	0.11–0.71	< 0.01
1.7 Ask, "would your father want us to restart his heart if it stops?"	0.51	0.20–1.26	0.14
1.8 Ask, "would your father want everything done?"	1.75	0.84–3.62	0.13

OR, odds ratio; CI, confidence interval

"mechanical ventilation" and "central venous placement" in the context of procedure-based questions. Conversely, emergency clinicians in Japan showed a more pronounced tendency to ask questions based on patient values. These findings are contrary to what was initially expected, as they reveal that Japanese physicians, who have limited opportunities to learn about end-of-life care tend to inquire more about patient values, whereas clinicians from the U.S. are more likely to ask procedure-oriented questions. We will further discuss why these differences exist in this section.

Among the factors that may have caused differences in questions regarding patient values, we considered the following three factors: differences in the emergency medical systems, differences between mono- and multi-ethnic countries, and cultural distinctions (Japanese individuals tend to protect patients from bad news, and the general tendency of Japanese patients to accept physicians' opinions without much questioning). First, in Japan, three distinct types of emergency rooms exist. In the first type, the roles of emergency care and inpatient care are combined. Such emergency rooms are often staffed by physicians who also specialize in intensive care or internal medicine, thus overseeing the entire continuum of care from emergency admission to hospital discharge. The second type of emergency rooms is staffed by on-call physicians trained in a wide range of medical specialties or by moonlighting physicians, who may not have undergone specific emergency medicine training but cover a broad spectrum of immediate medical needs. The third type of emergency room is structured similarly to EDs found in the U.S. [26]. Most emergency clinicians in Japan care for patients in the ED and continue providing care throughout the patients' hospitalization; thus, they work like internists or intensivists [27]. Among facilities that participated in this study, four hospitals are of the type in which the roles of emergency care and inpatient care are combined. Two hospitals operate in a manner similar to emergency rooms found in the U.S. However, in the U.S., EPs and ward physicians are typically different clinicians. The U.S. EPs are dedicated exclusively to the emergency department, focusing primarily on initial treatment and do not continue providing care after patients' admission to hospital wards. Therefore, Japanese EPs' ability to discuss patient values within the ward and their experience as internists or intensivists may influence the results.

Second, cultural diversity in Japan is lower than that in the U.S. because of its mono-ethnicity. Cultural differences between clinicians and patients make code status conversations more difficult [28]. The U.S. Census Bureau reported the ethnic breakdown of the overall U.S. population as follows—for "White alone," 75.8 %; "Black or African American alone," 13.6 %; and "Asian alone," 6.1 % [29]. The percentage of foreign-born persons who hailed from countries with cultural distinctions from U.S. natives was 13.6 % in 2008 [30]. Conversely, Japan is a racially homogeneous nation, and the percentage of foreign-born individuals was only 2.3 % in 2020 [31]. Relatively minor differences in cultural values within Japan affected these results.

Third, regarding cultural distinctions, Japanese family members tend to protect patients from hearing bad news and often make important decisions regarding end-of-life issues without including the patients' goals and values. Physicians in Japan show a similar tendency [32]. The fact that the respondent in the survey was patient B's daughter may also have influenced the nature of the questions posed, reflecting a protective approach typical in Japanese familial interactions. Additionally, Japanese patients tend to comply more readily with physicians' instructions than patients in the U.S do [17]. Therefore, in scenarios like the one presented, where invasive treatments may not be recommended, the intentions of the treating physician could more significantly influence decision-making.

The three factors discussed so far are believed to influence value-based questions. It is crucial to confirm values during important conversations, and this is also true for Japanese individuals, who, nonetheless, generally tend to avoid thinking about death, which results in fewer discussions about values under normal circumstances [9].

Table 5
Odds ratio for patient value-based components of code status conversations among emergency clinicians working in Japan compared to those in the U.S. using multivariate analyses. (Reference group: emergency clinicians working in the U.S.).

	Adjusted OR	95 % CI of OR	p value
2.1. Establish the daughter's understanding of illness	7.48	1.41–39.79	0.02
2.2. Ask about the baseline function of the patient	8.02	1.80–36.20	<0.01
2.3. Explore the patient's life priorities	13.04	3.60–47.27	<0.01
2.4. Explore the patient's willingness to go through invasive treatments for possibility of more time	1.85	0.75–4.64	0.18
2.5. Explore the patient's minimum quality of life that he would consider living	8.17	3.50–19.07	<0.01
2.6. Ask, "what is your understanding of your father's illness?"	0.61	0.22–1.69	0.34
2.7. Ask, "what could your father do on his good days in the past one month?"	9.19	3.98–21.23	<0.01
2.8. Ask, "what, according to your father, would be most important to him if time were short?"	18.05	7.06–46.14	<0.01
2.9. Ask, "according to your father, how much more would he be willing to go through for the possibility of more time?"	4.62	2.10–10.16	<0.01
2.10. Ask "what is the minimal quality of life that your father would consider good enough to live?"	7.63	3.43–16.92	<0.01
3.1. In the past year when you have faced similar clinical situations where immediate shared-decision making is necessary, how often did you provide a recommendation to the patient or surrogate on whether to intubate	6.11	2.71–13.81	<0.01
3.2. In the past year when you have faced similar clinical situations where immediate shared-decision making is necessary, how often did you attempt to contact the patient's primary outpatient clinician?	4.89	2.24–10.44	<0.01

OR, odds ratio; CI, confidence interval

However, in urgent decision-making situations, such as those presented in our survey, reactions may differ. In such cases, physicians, based on their experiences, may feel the need to ask questions about values to avoid invasive procedures as much as possible. Additionally, cultural differences and the Japanese tendency to protect individuals from bad news may also contribute to the higher likelihood of these types of questions in Japan than in the U.S.

Regarding procedure-based questions, some differences were found between emergency clinicians in Japan and the U.S. Several differences between cultures may have affected the results. We consider one reason for this finding; individuals in Japan avoid listening to concrete terms and prefer vague ones when talking about important matters. Older patients and physicians in Japan tend to avoid providing details when discussing medical care, such as mechanical ventilation and percutaneous endoscopic gastrostomy [33]. The items that showed significant differences in this study were related to specific procedures, namely "central venous catheter" and "ventilator management." This suggests a lesser likelihood of emergency clinicians in Japan providing detailed explanations because of a cultural preference for avoiding overly specific discussions.

Finally, although emergency clinicians in Japan can benefit from serious illness communication training, only 38.1 % of respondents reported receiving such training. This percentage is lower than that in the U.S. (86.7 %). In Japan, the Palliative Care Emphasis Program on Symptom Management and Assessment for Continuous Medical Education is conducted to teach end-of-life care, and Communication Skills Training programs are conducted to teach code status conversation [34,35]. However, the Japanese Society for Emergency Medicine does not specifically promote these programs for specialist certification and recertification [12]. Emergency clinicians are expected to voluntarily participate in such training courses, which may explain the lower reported experience of palliative care training and communication skills in end-of-life care.

In summary, in Japan, there is a tendency to avoid considering ACP in normal circumstances, which results in its lower implementation rate than in the U.S. Consequently, there may be a higher probability that end-of-life patients who have not undergone ACP are being admitted in severe conditions. Given such circumstances, and influenced by the three factors previously mentioned, there is a tendency to inquire more about patient values in Japan than in the U.S. However, the lack of systematic communication training courses might lead to variability in the quality of medical professionals. As a result, this situation could potentially place a significant burden not only on the patients but also on emergency medical professionals, as reported [14,15]. Therefore, courses on palliative care and communication training should be specifically designed for emergency clinicians in Japan.

4.2. Limitations

This study has several limitations. The first is the questionnaire's external validity, as the results may not represent all clinicians working in Japan or the U.S. The second is the use of a questionnaire to investigate code status conversations with hypothetical patients. Actual patterns of practice might not have been reflected in the questionnaire responses. Third, the term "training" was not clearly defined in the context of palliative care or communication skills, potentially leading to variability in its interpretation among respondents. Notably, the duration and intensity of training programs for serious illness communication vary significantly in the U.S. Some programs are comprehensive, extending over several weeks or months, while others are considerably shorter and, at times, last only a day or a week. Such variability could affect the comparability of training experiences between the U.S. and Japan, as the term encompasses a wide range of educational activities in this context. Fourth, the case used in this study involved an older adult patient at the end-of-life stage, with the patient's daughter providing informed consent. Therefore, the results may differ in other clinical scenarios or when other individuals are involved in the informed-consent process. Moreover, the same vignette was translated simply without consideration of cultural differences; therefore, future studies should explore multiple simulations considering cultural backgrounds and should directly involve patients instead of proxies where possible. Fifth, during the translation process, "Likelihood" was changed to "Necessity," and while conducting the test-retest analysis, we considered the challenges of language translation. It is important to accept the reported differences in responses between U.S. and Japanese clinicians relatively rather than absolutely because of the cultural distinctions, such as the U.S. individualistic response "how likelihood" versus the Japanese group-oriented approach "how necessary." Sixth, there are significant differences in the residency programs between the U.S. and Japan, which makes direct comparisons challenging. In the U.S., residency programs are structured with a specific focus and duration that differ markedly from the more variable and sometimes informal frameworks in Japan. This diversity in the structure and implementation of residency programs can complicate comparisons of clinical training and practice between the two countries.

4.3. Conclusions

In this clinical vignette-based study, significant differences were found between emergency clinicians in Japan and the U.S. in their reported practices regarding posing procedure-based and patient value-based questions. This suggests that differences also exist in how these two groups clinically approach code status conversations in a real-world setting. Serious illness communication training based in the U.S. must be adapted to the Japanese context, considering the cultural characteristics and practical responsibilities of Japanese emergency clinicians.

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CRediT authorship contribution statement

Kenji Numata: Conceptualization, Data curation, Formal analysis, Investigation, Project administration, Writing - original draft. **Shigeki Fujitani:** Supervision, Writing - review & editing, Analysis, Interpretation. **Hiraku Funakoshi:** Investigation, Writing - review & editing. **Minoru Yoshida:** Investigation, Writing - review & editing. **Yu Nomura:** Investigation, Writing - review & editing. **Rimi Tanii:** Investigation, Writing - review & editing. **Narihide Takemura:** Investigation, Writing - review & editing. **Jason Bowman:** Validation, Writing - review & editing, Conceptualization, Interpretation. **Joshua R. Lakin:** Validation, Writing - review & editing, Conceptualization, Interpretation. **Masaya Higuchi:** Validation, Writing - review & editing, Conceptualization, Interpretation. **Shan W. Liu:** Validation, Writing - review & editing, Conceptualization, Interpretation. **Maura Kennedy:** Validation, Writing - review & editing, Conceptualization, Interpretation. **James A. Tulsky:** Validation, Writing - review & editing, Conceptualization, Interpretation. **Thanh H. Neville:** Validation, Writing - review & editing, Conceptualization, Interpretation. **Kei Ouchi:** Supervision, Validation, Writing - review & editing, Conceptualization, Interpretation.

Declaration of Competing Interest

All the Authors have no interest to declare.

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or disguised so that the described individuals cannot be identified through the details of the story.

Appendix A. Supporting information

Supplementary data associated with this article can be found in the online version at doi:10.1016/j.pec.2024.108368.

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