

Medical doctors' preferences regarding end-of-life cancer care

Kasumi Nakajima,¹ Yumi Iwamitsu,² Noriyasu Sekiya,³ Yuki Tamari,⁴
Chikashi Kidoguchi,² Yujiro Kuroda,⁵ Keiichi Nakagawa⁶

¹Department of Psychology and Sociology, Tokai University

²Department of Medical Psychology, Graduate School of Medical Sciences, Kitasato University

³Department of Radiology, The University of Tokyo Hospital

⁴School of Management and Information, University of Shizuoka

⁵Department of Public Health, Fukushima Medical University School of Medicine

⁶Department of Radiation Oncology, The University of Tokyo Hospital

Objective: This study aimed to clarify attitudes toward death and preferences concerning end-of-life cancer care among Japanese medical doctors.

Methods: We conducted a questionnaire survey of the 1,791 doctors who received the self-administered, anonymous questionnaire that inquired about attitudes toward death (the Death Attitude Inventory), preferred sites for end-of-life cancer care and desired ways to spend the terminal stage of life, 460 doctors responded. Qualitative content analysis was conducted on the free responses.

Results: We divided doctors into 3 groups based on their preferred places of end-of-life cancer care: home (244, 53.0%), palliative care units (PCUs) (159, 34.6%), or hospitals (57, 12.4%). We observed no significant group-dependent differences with regard to attitudes toward death. Preferences regarding end-of-life cancer care were influenced by age and sex. Regarding how to spend their final days, the following 5 categories were extracted from all groups: "Readiness for death," "Hobbies," "Contact," "Life," and "Work." "Readiness for death," "Hobbies," and "Contact" were prominent categories extracted in all 3 groups. "Readiness for death" was particularly important for doctors in the PCU group.

Conclusion: Our results show that there is some consistency as well as some differences of medical doctors' preferences regarding end-of-life cancer care compared with those of the general population.

Key words: medical doctors, end-of-life cancer care, qualitative content analysis, palliative care units

Introduction

The increasing interest in the subject of death among medical professionals and patients has raised questions, such as in what form end-of-life cancer care should be provided and whether or not patients undergoing treatment for cancer should be informed of their diagnosis.¹ The importance of a holistic viewpoint based on biological-psychological-social well-being has been indicated in providing appropriate end-of-life care for patients.² Moreover, views and values of medical professionals concerning death and life have been suggested to affect the form of end-of-life care they provide, in fulfilling holistic end-of-life care.³

Previous research on the views of medical

professionals concerning death and life, and their attitudes toward terminal care in Japan, include a survey conducted by Uchinuno⁴ regarding end-of-life care at medical facilities and attitudes of health care providers toward death and dying, as well as a study by Takahara and Takeda⁵ examining the attitudes of nurses regarding terminal care at skilled nursing facilities. Uchinuno⁴ reported that, among medical professionals including those who provide holistic end-of-life care at medical facilities, individual values affect attitudes toward death, such as their specific ideas about death, the degree of death anxiety, and readiness for their own death. Takahara and Takeda⁵ revealed that nurses working at skilled nursing facilities who had no anxiety in terminal care felt they had sufficient experience in terminal care, had

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Correspondence to: Kasumi Nakajima, Department of Psychology and Sociology, Tokai University

4-1-1 Kita Kaname, Hiratsuka, Kanagawa 259-1292, Japan

E-mail: kasumin@tokai.ac.jp

positive attitudes toward terminal care, and were satisfied with the terminal care services they provide. These studies suggest that both working environment and clinical experience influence medical professionals' views on death and life, as well as their attitudes toward end-of-life care.

Neimeyer et al.⁶ conducted a literature review of factors relating to death anxiety among medical professionals, and indicated that such anxieties were moderated through experience in being with the dying and bereaved and involved more 'life and death' issues.

With regard to the effects of work environment and clinical experience on medical professionals' views and values on death and life, Hamasaki and Kuzuu⁷ also found that doctors involved in palliative care reported that they learned a great deal about death from dying patients. Sekiya et al.⁸ also reported that the scores for "Life Purpose" and "Death Concern" were high among both doctors and cancer patients, as indicated by research studies that examined perspectives on life and death by doctors, nurses, cancer patients, and the general population. This also suggests that doctors' clinical experiences affect their views and values concerning life and death.

Medical doctors usually explain the ending of anticancer treatment and transition to palliative care at palliative care units (PCUs) or transition to palliative care at home in cancer treatment.^{9,10} Both views and values of medical professionals concerning death and life have been suggested to affect the form of end-of-life care they provide in fulfilling holistic end-of-life care.³ Although medical doctors are influenced by patients concerning views and values on death and life, the ideas and conversations, including informed consent discussions, of medical doctors also affect patients. Thus, when medical doctors talk about transition to palliative care, their own preferences regarding end-of-life cancer care might affect their patients' decisions about the places providing end-of-life cancer care.

Despite this, to our knowledge this is the first study that examines the preferences among medical doctors regarding end-of-life cancer care, although Kuroda et al.¹ has examined the preferences of cancer patients and Sanjo et al.¹¹ examined such preferences in the general population. Given that palliative care in Japan is mainly directed to cancer patients, the present study aimed to examine how doctors' preferences regarding end-of-life cancer care are associated with basic attributes such as age, sex, and clinical experience.

Materials and Methods

Participants

Subjects were medical doctors belonging to four regional medical associations (Edogawa City, Ota City, Nakano City, and Himeji City) who agreed to participate in this survey. We mailed the questionnaire forms to 1,791 medical doctors, with a request to complete and return it anonymously. Responses were regarded as their consent to participate. Of the 576 medical doctors who replied (response rate: 32.2%), we analyzed the response data received from 460 medical doctors (363 males, 95 females, 2 unspecified) who filled out the free response section regarding how they wish to spend the terminal phase of their lives. The participants worked in internal medicine (n = 210, 45.7%), surgery (n = 62, 13.48%), pediatrics (n = 42, 9.13%), otorhinolaryngology (n = 28, 6.09%), obstetrics and gynecology (n = 26, 5.65%), ophthalmology (n = 26, 5.65%), dermatology (n = 15, 3.26%), urology (n = 10, 2.17%), and others (n = 45, 9.78%). This study was approved by the ethics committee of the Graduate School of Medicine and Faculty of Medicine, the University of Tokyo.

Questionnaire

The questionnaire was divided into the following five main areas:

1. Basic attributes: included questions regarding sex, age, form of employment, length of clinical experience, and involvement in cancer treatment.
2. Preferred place of care during the terminal stage and reasons for the preference: participants chose "home," "hospital," or "palliative care unit (PCU)" as the preferred place of terminal care. Participants were also asked to write freely about their reasons for their preference.
3. Wishes concerning life expectancy disclosure: participants chose: "I don't want to know," "I only want to be told if I ask," "I want the doctor to ask me whether or not I would like to be told," and "I would like the doctor to explain in detail," assuming they had a life expectancy of 6 or 1 to 2 months.
4. Wishes for how to spend the terminal phase of their lives: participants were asked to write freely about their preferred way of spending their final days, assuming they had a life expectancy of 6 months.
5. Attitudes toward death: participants were asked to respond to the Death Attitudes Inventory (DAI) developed by Hirai et al.¹² This inventory includes 7 subscales (view on afterlife; death anxiety/fear; death as a release; avoidance of death; sense of purpose in

life; interest in death; view on a predestined lifespan). Subscales 1–6 comprised four questions (4–28 points), and subscale 7 comprised three questions (3–21 points).

We analyzed the data to identify any differences in age, sex, clinical experience, views on life and death, and the preferred site for end-of-life care, based on their responses to questionnaire areas 1. "Basic attributes," 2. "Preferred place of care during the terminal stage," 4. "Wishes for how to spend the terminal phase of their lives," and 5. "Attitudes toward death."

Procedures

Participants were asked to fill out the questionnaire voluntarily following a written explanation. The returned questionnaire was regarded as consent to participate.

Analyses

Each basic attribute was aggregated according to the preferred site for receiving end-of-life care: "home," "hospital," and "PCU." The χ^2 test was used to examine the relationships between basic attributes and preferred

sites for end-of-life care; and residual analysis¹³ was also performed. The Kruskal-Wallis test was used to analyze group-dependent differences in scores of the DAI.

We subsequently performed qualitative content analysis of the free responses regarding the preferred way to spend the terminal stage according to the methods described by Mayring.¹⁴ First, 3 of 6 analysts each extracted key expressions and contents from responses of the 460 medical doctors. Then, names (code names) were given to the expressions and contents, and similar contents were likewise coded. Based on these, similar codes were aggregated and categorized, along with subcategory names. Similar subcategories were aggregated and categorized, along with category names. Finally, the 3 analysts, 1 psychologist, and 2 medical doctors checked and discussed the codes, subcategories, and categories repeatedly, until an agreement was reached, and content validity was examined. To examine whether the existence of categories was affected by responses to the "preferred site for end-of-life care," the χ^2 test was performed for each category. Also, we performed qualitative content analysis of free responses regarding reasons for the

Table 1. Participants' basic attributes and preferred sites for end-of-life care

	Frequency (%)			Total (n = 460) (%)
	Home (n = 244)	Hospital (n = 57)	PCU (n = 159)	
Age bracket, years*				
30–49	47 (43.9)	12 (11.2)	48 (44.9)	107 (100)
50–69	135 (51.3)	34 (12.9)	94 (35.7)	263 (100)
>70	62 (68.9)	11 (12.2)	17 (18.9)	90 (100)
Sex**				
Male	204 (56.2)	44 (12.1)	115 (31.7)	363 (100)
Female	40 (42.1)	12 (12.6)	43 (45.3)	95 (100)
Unspecified	1	1	2	4
Length of clinical experience, years				
1–29	104 (48.1)	28 (13.0)	84 (38.9)	216 (100)
>30	140 (57.4)	29 (11.9)	75 (30.7)	244 (100)
Experience with cancer treatment in previous years, number of people				
0–99	158 (54.1)	33 (11.3)	101 (34.6)	292 (100)
>100	80 (49.7)	24 (14.9)	57 (35.4)	161 (100)
Unspecified	6	–	1	7
Experience in being with dying cancer patients in previous years, number of people				
0	48 (52.2)	10 (10.9)	34 (37.0)	92 (100)
1–49	125 (55.1)	26 (11.5)	76 (33.5)	227 (100)
>50	68 (50.0)	21 (15.4)	47 (34.6)	136 (100)
	3	–	2	5

*P < 0.01, **P < 0.05

preference according to the above methods.

SPSS (v.24.0) software was used for data analysis.

Results

Participant attributes

We received responses from 460 participants (363 males, 95 females, and 2 unspecified). The most frequent age bracket was "50s (50–59 years)" for males, and both "40s (40–49 years)" and "50s (50–59 years)" for females. Regarding the form of employment, "a private-practice doctor" was the most frequent response for both sexes. As for clinical experience as medical doctors, "over 30 years" was the most frequent response, followed by "20–29 years" for both male and female participants.

Sex, age, length of clinical experience, previous experience involved with cancer treatment, and experience in being with dying cancer patients are shown in Table 1. More than 80% of respondents were involved in cancer treatment in previous years, and approximately 80% of participants responded that they had experienced being with dying cancer patients.

Basic attributes and preferred sites for end-of-life care

Three age groups were created by dividing participants into groups of: 30–49 years, 50–69 years, and ≥70 years, following Levinson's developmental theory.¹⁵ With regard to the length of the clinical experience, including that with cancer treatment and being with dying cancer patients, we aimed to include more than 10 participants in each group. This created 2 groups based on clinical experience (1–29 years, and ≥30 years), 2 groups according to experience with cancer treatment (0–99 persons and ≥100 persons), and 3 groups based on experience being with dying cancer patients (0, 1–49 persons, and ≥50 persons).

We then assessed differences in frequencies between

the groups using the χ^2 test. This revealed significant differences among the groups in age ($\chi^2 = 18.628$, $df = 4$, $P = 0.001$) and sex ($\chi^2 = 7.408$, $df = 2$, $P = 0.025$). Residual analysis found the age group of "30–49 years" to have a significantly high frequency of "PCU" (44.9%) ($|r| = 3.0$, $P < 0.01$), and a significantly low frequency of "home" (43.9%) ($|r| = -2.4$, $P < 0.05$), as the site for end-of-life care. In contrast, the age group of "≥70 years" had a significantly high frequency of "home" (68.9%) ($|r| = 3.5$, $P < 0.01$), and a significantly low frequency of "PCU" (18.9%) ($|r| = -3.7$, $P < 0.01$).

Males (56.2%) had a significantly high frequency of "home" as the site for end-of-life care ($|r| = 2.5$, $P < 0.05$), and females (45.3%) had a significantly high frequency of "PCU" ($|r| = 2.6$, $P < 0.05$).

Preferred site for receiving end-of-life care and DAI scores

Group-dependent differences in DAI scores were analyzed by the Kruskal-Wallis test. This analysis revealed no significant group-dependent differences (home, hospital, PCU) in these scores (Table 2).

Wishes for how to spend terminal phase

The following 5 categories were extracted in the qualitative content analysis of free responses in all groups: "Readiness for death," "Hobbies," "Contact," "Life," and "Work" (Table 3). The "Religion and faith" category was extracted from both the home and PCU groups, and the "Hope for life" category from both the hospital and PCU groups.

In the "Readiness for death" category, 7 (the hospital group) or 8 subcategories (the home and PCU groups) were extracted: 1. property organizing, 2. affairs organizing, 3. work organizing, 4. generalizing one's own work, 5. life summary, personal history, etc., 6. readiness for last moment, 7. arrangements after death, and 8. deleting the tracks of one's own life. This category is one

Table 2. Mean scores for each subscale of the Death Attitudes Inventory

	Mean (SD)		
	Home (n = 244)	Hospital (n = 57)	PCU (n = 159)
Belief in the afterlife	10.8 (6.7)	10.4 (7.1)	11.6 (7.4)
Death anxiety	14.7 (7.2)	15.2 (7.5)	14.2 (6.7)
Death relief	12.2 (6.8)	12.2 (7.6)	13.8 (7.0)
Death avoidance	9.8 (5.4)	10.6 (6.3)	9.6 (5.3)
Life purpose	16.9 (5.9)	15.8 (6.1)	16.7 (5.3)
Death concern	13.7 (6.2)	12.8 (6.1)	14.3 (5.6)
Supernatural belief	10.5 (5.7)	10.8 (5.4)	11.5 (5.7)

Table 3. Desired place for end-of-life care and preferred way of spending terminal phase

Category (subcategory)	Frequency (%)		
	Home (n = 244, 53.0%)	Hospital (n = 57, 12.4%)	PCU (n = 159, 34.6%)
Readiness for death	215 (32.6)	37 (24.2)	169 (37.1)
Property organizing	61	6	40
Affairs organizing	60	15	51
Work organizing	41	8	35
Resigning from work	—	1	11
Generalizing one's own work	5	—	6
Life summary (personal history, etc.)	18	2	15
Deleting the tracks of one's own life	2	—	—
Readiness for the last moments	11	3	5
Arrangements after death	17	2	6
Hobbies	200 (30.3)	53 (34.6)	137 (30.0)
Eating and drinking	32	10	9
Traveling	102	25	74
Arts	15	4	12
Sports	8	5	6
Painting	—	—	2
Reading	13	3	14
Mountain climbing	2	2	—
Driving a car	1	1	1
Fishing	1	—	—
Others	20	3	18
Spending money	6	—	1
Contact	146 (22.1)	36 (23.5)	80 (17.5)
Messages for family	30	11	28
Parting with family	4	1	2
Spending time with family; family ties	54	8	21
Messages for friends or acquaintances	16	8	13
Parting with friends or acquaintances	10	2	6
Meeting friends or acquaintances again	21	6	9
Spending time with friends or acquaintances; friendships	11	—	—
Spending time with a precious person	—	—	1
Life	50 (7.6)	11 (7.2)	24 (5.3)
A life in the past	32	6	9
A peaceful life	5	2	8
A freewheeling life	4	—	3
A life in nature	8	2	3
An active life	1	—	1
Moving to a place where there are no acquaintances	—	1	—
Work	20 (3.0)	7 (4.6)	18 (3.9)
Continuation of work	19	6	16
A new job; contribution to the community, etc.	1	1	2
Religion and Faith	10 (1.5)	—	13 (2.9)
Commemoration of ancestors	3	—	1
Interest in religions	7	—	12
Hope for life	—	2 (1.3)	1 (0.2)
Seek for more effective treatment	—	2	—
Seek a way to live long	—	—	1
Others	19 (2.9)	7 (4.6)	14 (3.1)
No idea; go with the flow	12	3	11
Nothing special to do	4	4	3
I'll find no special meaning in death	3	—	—

concerning organizing personal things before one's own death. The reason for classifying the "work organizing" subcategory into this category was that it included responses indicating transferring the responsibility of one's job to another.

In the "Hobbies" category, many subcategories were extracted, including "eating and drinking," "traveling," and "reading." These subcategories were listed as hobbies that respondents have always enjoyed, or as new hobbies that they would like to try in the future.

In the "Contact" category, 6 (the hospital group) or 7 (the home and PCU groups) subcategories were extracted as: 1. messages for family, 2. parting with family, 3. meeting family again, 4. spending time with family; family ties, 5. messages for friends or acquaintances, 6. parting with friends or acquaintances, 7. meeting friends or acquaintances again, and 8. spending time with friends or acquaintances; friend ties. This category is about relationships with one's family and friends or acquaintances.

In the "Life" category, 4 (hospital group) or 5 (home and PCU groups) subcategories were extracted, including: 1. a life in the past, 2. a peaceful life, 3. a freewheeling life, 4. a life in nature, 5. an active life, and 6. moving to a place where there are no acquaintances. This category is regarding living during one's final period of life.

In the "Work" category, 2 subcategories were extracted: 1. continuation of work, and 2. a new job, contribution to the community, etc. This category is concerning a job during one's final period of life.

In terms of the frequency at which these categories were extracted, the most predominant category in the home group was "Readiness for death" (32.6%), followed by "Hobbies" (30.3%) and "Contact" (22.1%); in the hospital group, "Hobbies" (34.6%), followed by "Readiness for death" (24.2%) and "Contact" (23.5%); and in the PCU group, "Readiness for death" (37.1%), followed by "Hobbies" (30.0%) and "Contact" (17.5%). Although the "Life" and "Work" categories were extracted in all groups, the frequency was less than 10% for both. Therefore, categories except for "Readiness for death," "Hobbies," and "Contact" were collectively labeled as "Others." To identify group-dependent differences in frequencies of each category, we used the χ^2 test and performed residual analysis. The χ^2 test for each category revealed a significant trend in group-dependent differences ($\chi^2 = 10.752$, $df = 6$, $P = 0.096$). Specifically, "Readiness for death" (37.1%) in the "PCU" group had a significantly high frequency of extraction ($lrl = 2.3$, $P < 0.05$), and the "Readiness for death" (24.2%) category in the "hospital" group had a significantly low frequency

($lrl = -2.4$, $P < 0.05$). Furthermore, the "Contact" (23.5%) category was extracted at a significantly low frequency in the "PCU" group ($lrl = -2.1$, $P < 0.05$).

With regard to the "Religion and faith" category extracted in the home and PCU groups, the same subcategories were extracted in both groups: 1. Commemoration of ancestors, and 2. Interest in religion(s). In the "Hope for life" category, the subcategory "Seek for more effective treatment" was extracted in the hospital group, and "Seek a way to live long" in the "PCU" group.

Preferred site for end-of-life care and reasons for this preference (Table 4)

Some participants who preferred "home" as their site for end-of-life care responded that, "I want to spend my last days in a familiar place" or "I want to spend my last days in peace." In both the "hospital" group and the "PCU" group, some participants noted that, "I do not want to place a burden on my family." In the "PCU" group, some responded that, "I really want to stay at home." Still others in the "hospital" group responded that, they "trust in the hospital," and some in the "PCU" group noted the presence of "merits of the PCU."

Discussion

Preferred site for end-of-life cancer care

In the present survey, 53.0% of respondents chose "home" as the place of end-of-life cancer care, 34.6% chose "PCU," and 12.4% chose "hospital." In a survey of the general population in Japan, approximately 50% preferred "home" as the place of end-of-life cancer care and death, whereas approximately 40% preferred "PCU".¹¹ The same trend was also recognized among medical doctors. However, analysis by age bracket revealed that approximately 70% of respondents aged "≥70 years" preferred "home," a feature specific to medical doctors. This result underscores the need and anticipation for home-based palliative care systems and enhancement of existing home-visit care systems. Because it is unclear whether or not this tendency is influenced by clinical experience, this warrants elucidation in future studies.

Significant differences were also observed between preferred sites and basic attributes such as sex. "Home" was preferred by males, and "PCU" was preferred by females. These results are consistent with a study by Nagasaki et al.,¹⁶ who examined participants aged 30–59 years, and revealed consistencies, as well as differences, between medical doctors and the general population with regard to preferences for the site of end-of-life cancer care. There are no studies that examined

the reason women prefer "PCU" and men prefer "home." Given that medical doctors show similar sex differences to the general population, the sex difference between a medical doctor and a patient should be considered in clinical practice.

Wishes for the way to spend final days

With regard to the preferred way of spending the final days, the same categories were extracted in all the groups. This suggests that the 5 aspects: "Readiness for death," "Hobbies," "Contact," "Life," and "Work" are emphasized regardless of where one wants to spend his or her final days. According to Miyashita et al.,¹⁷ who examined domains contributing to a good death in Japanese cancer care, 10 domains were classified as "consistently important domains," including "dying in a favorite place," "maintaining hope and pleasure," "good relationship with family," and "life completion," whereas 8 domains were classified as "mixed important domains" or "relatively less important domains," including: "receiving enough treatment," "control over the future," and "feeling that one's life is worth living." These domains were similar to the categories extracted in our study, suggesting that regardless of occupation, those categories represent important aspects of terminal care for Japanese people.

With respect to the "Readiness for death" category, which was extracted at a higher frequency in all 3 groups from the contents of subcategories, our findings are consistent with a report by Kimura and Ando.¹⁸ In their study, "preparation for death" included 9 items: "decision making on care and nursing," "decision making on funeral and grave," "property organizing," "affairs organizing," "decision making on inherited property and making testament," and "making personal history." Given that "preparation for death" has been shown to be motivated by one's consideration of others,¹⁸ this category seemed to be extracted at a higher frequency in all the groups.

Wishes for the way to spend one's final days by preferred place of end-of-life care

In the "Home" group, proportions for "Readiness for death" (32.6%) and "Hobbies" (30.3%) were similar, suggesting that respondents desire to do many things at home, such as organizing their home and work, enjoying hobbies, and trying new things. In addition, respondents in this group did not appear to desire to "seek for more effective treatment" or "seek a way to live longer," based on the fact that the "Hope for life" category was not extracted. As Osono et al.¹⁹ indicated, "patients could not accept their own terminal phase (so they would desire to continue treatment at the hospital)" was a factor that

hampered the continuation of home care in terminal cancer patients. As such, wishes to spend the final days at home may reflect a high tendency of accepting their own condition.

In the "Hospital" group, proportions, from high to low, were 34.6% for "Hobbies," 24.2% for "Readiness for death," and 23.5% for "Contact." Although there was no significant difference between groups, only in this group was "Hobbies" extracted at the highest frequency. Hashimoto et al.²⁰ reported that one of the reasons for discontinuation of home care was physical problems. It appears that respondents hope to enjoy their hobbies before being admitted to a hospital, since they are afraid that they will not be able to enjoy their hobbies due to physical problems.

The proportion for "Readiness for death" category in the hospital group was significantly low. According to the J-HOPE Study²¹ of bereaved families of terminal cancer patients, those who selected "hospital" as the preferred site for end-of-life care value "seeing one's doctor." The present study also indicated that some in the "hospital" group responded "trust in hospital" and "hope for life" as reasons for their preference. They might value putting their physical problems into the hands of the hospital rather than facing their own death. However, the number of respondents in this group (57 people) was very small compared to other groups. Further studies are warranted regarding these traits in the "Hospital" group.

In the "PCU" group, the proportion of "Readiness for death" was significantly high. According to the 2011 survey conducted by Hospice Palliative Care Japan, the average deceased patient discharge rate (number of deceased patient discharges/number of patients hospitalized in PCUs) was 83.1%.²² Patients would be aware of their own death when they enter PCUs in Japan, and more respondents in this group would like to make preparations for their own death before entering the PCUs than would patients in the other groups. In addition, given that "preparation for death" has been shown to be motivated by one's consideration of others,¹⁸ the respondents in the "PCU" group may have a higher tendency "not to cause people trouble" compared to respondents in other groups. This is also evident from the fact that most frequent were responses such as, "I do not want to burden my family" as the reason for choosing "PCU." On the other hand, the "Contact" category in this group was significantly low. When queried about reasons for choosing "PCU," some participants responded that, "I do not want to burden my family," "one should be expected to be ready for one's death," "one can be expected

to make the best of one's time before death," and "the PCU is accustomed to death." Meanwhile, some in the "Home" group responded with reasons such as, "I want to spend time with my family." Therefore, the "PCU" group seems to value "Readiness for death" more than "Contact."

The "Hope for life" category was extracted even in the "PCU" group. As mentioned above, because patients are aware of their own death when entering the "PCU," "Hope for life" might reflect, in a way, the "preparation for death," i.e., doing as much as they can so as to accept their own death with no regret.

Limitations

There are some limitations to this study. First, we could not obtain data reflecting all medical doctors, because most participants were private practice doctors in the limited area. Second, the response rate was low (32.2%). This indicates that we should improve the items in the survey. Finally, since we collected approximate information on age, clinical experience, experience being with dying patients, and experience with cancer treatment, we could not clearly examine the relationship between these variables and the preferred site of end-of-life care or views on life and death. Future studies are warranted to clarify these issues.

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