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Exploring the Attitudes and Needs of Advance Care Planning Practice Among the Working Generation

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Background: This study explores the working generation's attitudes and needs regarding advance care planning and the factors associated with its practice.

Methods: This cross-sectional study was conducted through a questionnaire survey with adults working in Kakegawa City, Japan. Logistic regression was used to assess the relationships between advance care planning practices and potential related factors.

Results: Of the 182 participants whose data were analyzed, 49.5%, 17.6%, and 2.7% reported having considered, discussed, and documented advance care planning, respectively. The logistic regression analysis showed that advance care planning consideration was associated with three factors: experience of serious accidents/diseases, presence of agencies/persons to consult about medical treatment and care, and willingness to learn about it. Discussion about advance care planning was significantly associated with the following factors: female, experience of serious accidents/diseases, and willingness to learn about it. Due to limited completion rates, documented advance care planning was excluded from the relevant statistics.

Conclusions: Incidence of advance care planning among the working generation is low. It might be necessary to create a foundation of related knowledge as well as opportunities for consideration or discussion by which people can understand the need for advance care planning.

Keywords: advance care planning, attitudes, cross-sectional research, working generation

Introduction

Advance care planning (ACP) has been gaining attention

since people are realizing the importance of living a dignified life, which includes respecting one's own wishes for medical treatment and care. Sudore et al.¹ define ACP

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as a “process that supports adults at any age or stage of health in understanding and sharing their values, life goals, and preferences regarding future medical care” (p. 821). Furthermore, the Japanese Geriatrics Society defines ACP as a process that supports the realization of decisions about future medical care and treatment while respecting individual choice, and it recommends the initiation of ACP for people at all stages of health in the community.² Both these definitions indicate the need of ACP for all persons in a manner appropriate to their situation, both nationally and internationally.

However, traditional studies regarding ACP have focused on the sick and elderly,^{3,4} and only a few studies have been conducted with healthy adults, especially the working generation. Some focus on ACP attitudes and involvement among young adults,^{3,5,6} while others have described ACP experiences and associated factors such as caregiving across age groups, including the elderly.⁷⁻¹¹ However, ACP among the working generation remains poorly understood.

The working generation experiences many changes in their life cycle, such as with career choices, marriage, child-rearing, or parental caregiving.¹² Deliberating ACP at each crossroad of life might help them live better in old age. Additionally, the working generation has important roles both in society and at home. Adulthood is also a time when health problems such as stress-related diseases, cancer, or lifestyle-related illness arise.¹² While some may take their health for granted, notably, the indifference or perception of being too healthy can be a barrier to ACP.¹³ The importance of encouraging ACP as part of health promotion and primary health care has also been shown.^{14,15}

Given this background, the current study explores the working generation’s attitudes and needs toward ACP and the related factors in ACP practice, as a basis for creating a tailored awareness program.

Methods

Design, setting, and participants

A descriptive cross-sectional study was conducted in Kakegawa City in Japan. This city is located between the Tokyo metropolitan area and the Chubu region, and has a

population of 116,580 (as of October 14, 2021).¹⁶

The study participants who live or work in Kakegawa City were recruited from 13 different companies registered at the Kakegawa Health Promotion Office or were citizens joining a nonprofit organization that supports community healthcare for the residents. The Kakegawa Health Promotion Office is a group of 22 companies and organizations certified by Kakegawa City that are actively engaged in health promotion in the city.

Study procedures

Data were collected by mail and online surveys using an anonymous questionnaire from December 25, 2020, to January 20, 2021. First, the study’s purpose and procedures were explained to the representatives of each company’s healthcare departments. Next, the companies that consented to the study selected either mail or online survey. Then, the questionnaire or URL was shared with all potential participants from companies that consented to the study.

Measure

The questionnaire was developed with reference to Suldore et al.’s¹⁷ framework of ACP outcomes and a previous survey¹⁸ to determine factors that influence the practice of ACP.

Outcome variable

The outcome variable was ACP practice. We defined ACP practice as the experiences of having considered, discussed, and documented ACP. Documented ACP included any format of written material on ACP, for example, a booklet constituting an informal living will.

Regarding the first, respondents were asked “how do you want to live in order to receive your personal preferences for medical treatment and care at the end of your life?” For the latter two actions, they were asked whether they had ever discussed and documented their ACP. Participants answered “Yes” or “No” for each question and were asked to select a reason for it from a list of options.

Independent variables

Characteristics

Characteristics included the participants’ gender, age, occupation, family structure, and self-reported physical

and psychological health statuses. Among these, physical and psychological health statuses were evaluated on a four-point scale ranging from 1 (very poor) to 4 (very good), respectively. Moreover, participants were asked whether they had experiences of serious accidents or illnesses, caregiving, and bereavement; whether they had agencies/persons to consult about medical treatment and care as community resources; and whether they had experience with or were willing to learn about ACP.

Attitude toward death

The attitude toward death scale for the middle-aged and elderly (ATDS-A),¹⁹ was used to assess respondents' views (culture-specific and both negative and positive) on life and death. It consists of 25 items and five subscales: fear of death, belief in the existence of after-life, intention to live out own life, meaning of death for life, and approval of death with dignity. Each item is rated on a scale ranging from 1 (completely disagree) to 5 (completely agree), and the total scores range from 25 to 125. Reliability of the ATDS-A was confirmed using Cronbach's alpha coefficients ranging from 0.59 to 0.87 for each subscale, and an adequate construct validity has been shown.¹⁹ Cronbach's alpha for the ATDS-A for each dimension in this study ranged from 0.64 to 0.87.

Family function

Family function was measured by the Japanese version²⁰ of five items of the Family APGAR.²¹ It measures five domains: adaptability, partnership, growth, affection, and resolve. With a scale from 1 (rarely) to 3 (often), scores range from 5 to 15 and higher scores indicate better family functioning. The Japanese version of the Family APGAR was found to be valid and reliable, with a Cronbach's alpha of 0.93²⁰ in prior research and 0.92 in this study.

Social support

Social support was assessed using the Japanese version²² of the multidimensional scale of perceived social support (MSPSS).²³ This tool comprises a 12-item scale based on a 7-point Likert scale (1 = very strongly disagree; 7 = very strongly agree) to assess perceived social support from three sources: family, friends, and the significant other. The total score ranges from 12 to 84, with a higher score indicating a higher perception of social supports. The Japanese version of MAPSS's Cronbach's alpha was reported as 0.91, while the validity was sup-

ported by the criteria-related validity.²³ In the present study, the Cronbach's alpha was 0.95.

Data analysis

First, we analyzed the differences of participant's characteristics shown in both the web and the mail surveys. Since there was no significant difference between the two, we analyzed these together. Next, descriptive analyses were performed to examine each variable. Then, respondents were categorized into two groups based on either household type, or self-reported physical/psychological health status. House-hold type were classified into those living alone vs. those living with a family. Self-reported physical/psychological health status was categorized as follows: responses of 1 and 2 as "poor" and responses of 3 and 4 as "good." Moreover, the Shapiro-Wilk test was used to assess the normal distribution for continuous variables; age, ATDS-A, Family APGAR, and MSPSS. Only "fear of death" ($p = 0.187$), which is a subscale of ATDS-A, followed a normal distribution. A univariate analysis was conducted to examine the association between each of the binary independent variables and ACP practices, using either the chi-square test/Fisher exact test (F test) for binary variables and the t-test/Mann-Whitney U test for continuous variables. Lastly, logistic regression analysis with simultaneous forced entry was carried out on ACP as a dependent variable to identify more reasonable factors concerning ACP practices. As only five people had documented ACP, we decided not to perform univariate analysis and logistic regression analysis for documented ACP. Variables were included in the model if an association had a p-value < 0.05 for both "Considered ACP" and "Discussed ACP." Although "presence of agencies/persons to consult about medical treatment and care" was significant only for "Considered ACP," we decided to select the same as a variable because it was considered important as a community variable. We also input the following variables that previous studies point out as being possibly related to ACP practices: age^{11, 24, 25} and gender.^{10, 11} The goodness of fit for the model was assessed using the Model Chi-square test, the Hosmer-Lemeshow test, and the -2 Logarithm Likelihood. The collected data were analyzed using IBM SPSS Statistics 26.0 (IBM Japan, Tokyo, Japan).

Table 1. Characteristics of respondents (n = 182)

	n	(%)
	or Mean±SD	
Gender		
Female (Vs. Male)	81	(44.5)
Age	45.6±10.4	
Employment		
Full-time employment	149	(81.9)
Dispatch/Part-time employment	24	(13.2)
Self-employed	5	(2.7)
Others	4	(2.2)
Occupational		
Office workers	53	(29.1)
Professional and specialist	32	(17.6)
Administrative workers	29	(15.9)
Manufacturing process workers	25	(13.7)
Sales workers	13	(7.1)
Service workers	11	(6.0)
Others	8	(4.4)
No answer	11	(6.0)
Family structure		
Two generations	114	(62.6)
Three generations	27	(14.8)
Only as a couple	22	(12.1)
Living alone	14	(7.7)
Others	5	(2.8)
Self-reported physical health status		
Very healthy	38	(20.9)
Healthy	124	(68.1)
Not so healthy	18	(9.9)
Not healthy	2	(1.1)
Self-reported psychological health status		
Very healthy	36	(19.8)
Healthy	114	(62.6)
Not so healthy	31	(17.0)
Not healthy	1	(0.5)

Ethical considerations

Approval for this study protocol was obtained from the Ethics Committee of the Tokyo Women's Medical University (Approval No. 5724). All potential participants were informed about the study by an explanatory leaflet describing the study's procedure at their workplace. Candidates were informed of the study's aim and procedure, and they were advised that participation was voluntary. If participants agreed to participate in the study, they were asked to check a box on the questionnaire and return it.

Results

From the 902 mailed or online questionnaires, 214 responses were received (response rate, 23.7%). One re-

spondent expressed disagreement with the survey, and was thus excluded from the analysis (n = 1). Further, in this survey, in order to broadly investigate people who undertook any category of work, we also surveyed the persons who were members of civic organizations or welfare commissioners, for example. However, we excluded these respondents from the analysis (n = 16), because they were in their late 60s or 70s, i.e., a different age group to the adult working generation.

Moreover, respondents with missing data on the variables were excluded (n = 15). Finally, a total of 182 responses were included in the analysis (effective response rate, 20.2%).

Characteristics of respondents

Characteristics of the respondents are shown in **Table 1**. Among the 182 respondents, 44.5% were female and 55.5% were male. Their mean age was 45.6 ± 10.4. The majority were full-time employees, healthy, and living with family. Of the respondents, 18.7% had experienced serious accidents/diseases, 12.6% had experienced caregiving, and 76.4% had experienced bereavement.

Status of and reasons for ACP practice

Table 2 shows the status of ACP practice and the reasons for its practice or nonpractice. A total of 90 respondents had considered ACP (49.5%). Among them, 32 (17.6%) had discussed ACP, while only five (2.7%) had documented ACP.

The following are the top three reasons for not practicing ACP. Regarding why they had not considered ACP, under half of the respondents reported that they could not imagine it. Moreover, 18.5% responded that "Although I am healthy now, I do not need it," and 10.9% responded that "Even if think about it, I do not think that is actually going to happen." Regarding not discussing ACP, 36.7% responded that they had no chance to discuss ACP, 16.0% said they did not need it, and 11.3% had not known how to discuss ACP. The reasons for not documenting ACP were no chance to write (50.8%) as well as no knowledge of what to write (15.3%) or how to write (13.6%).

Univariate analysis

Table 3 presents the results of the univariate analysis

Table 2. Status of advance care planning (ACP) practice and reasons for practice or nonpractice (n = 182)

	Considered ACP		Discussed ACP		Documented ACP			
	n	(%)	n	(%)	n	(%)		
Yes	90	(49.5)	32	(17.6)	5	(2.7)		
Reason for yes			Reason for yes		What did you document?			
Death of someone close to me	38	(42.2)	Death of someone close to me	16	(50.0)	Ending note	3	(60.0)
Changes in own health status	19	(21.1)	Changes in own health status	7	(21.9)	Others	2	(40.0)
Changes in family health status	11	(12.2)	Changes in family health status	7	(21.9)			
News about disasters, incidents, etc.	11	(12.2)	News about disasters, incidents, etc.	0	(0)			
Others	11	(12.2)	Others	2	(6.3)			
No	92	(50.5)	No	150	(82.4)	No	177	(97.3)
Reason for no			Reason for no		Reason for no			
Unimaginable	43	(46.7)	No chance to discuss ACP.	55	(36.7)	No chance to write	90	(50.8)
Although I am healthy now, I do not need it.	17	(18.5)	I do not feel the need for it.	24	(16.0)	I do not know what to write.	27	(15.3)
Even if I think about it, I do not think that is actually going to happen.	10	(10.9)	I do not know how to discuss ACP.	17	(11.3)	I do not know how to write.	24	(13.6)
Thinking about the end of life is scary.	7	(7.6)	There is no place to discuss ACP.	12	(8.0)	Because I do not think it will actually happen, I am not going to write about it.	6	(3.4)
No time to think	6	(6.5)	I think that circumstances and thoughts will change.	11	(7.3)	No time to write	5	(2.8)
Not interested	5	(5.4)	I do not want to burden him/her.	11	(7.3)	Others	11	(6.2)
Jinx	2	(2.2)	No time to discuss	6	(4.0)	No answer	14	(7.9)
Others	1	(1.1)	Even if I talk about it, I don't think that is actually going to happen.	4	(2.7)			
No answer	1	(1.1)	However I discuss about it, he/she does not understand.	1	(0.7)			
			I am worried about what they will think of me.	1	(0.7)			
			Others	3	(2.0)			
			No answer	5	(3.3)			

Table 3. Factors associated with the practice of advance care planning (ACP): Univariate analysis (n = 182)

Variables	All			Considered ACP			Discussed ACP		
	n = 182	No n = 92	Yes n = 90	No n = 150	Yes n = 32	p			
	n (%) /Mean±SD	n (%) /Mean±SD	n (%) /Mean±SD	n (%) /Mean±SD	n (%) /Mean±SD	n (%) /Mean±SD	n (%) /Mean±SD	n (%) /Mean±SD	
Gender	81 (44.5)	36 (44.4)	45 (55.6)	61 (75.3)	20 (24.7)	0.140 a)	20 (24.7)	0.024* a)	
Age	45.6 ± 10.4	45.2 ± 10.4	46.8 ± 10.4	45.4 ± 10.5	48.7 ± 9.9	0.453 d)	48.7 ± 9.9	0.173 d)	
Family structure	168 (92.3)	86 (51.2)	82 (48.8)	139 (82.7)	29 (17.3)	0.589 b)	29 (17.3)	0.715 b)	
Self-reported physical health status	162 (89.0)	83 (51.2)	79 (48.8)	133 (82.1)	29 (17.9)	0.642 b)	29 (17.9)	1.000 b)	
Self-reported psychological health status	150 (82.4)	78 (52.0)	72 (48.0)	123 (82.0)	27 (18.0)	0.397 a)	27 (18.0)	1.000 b)	
Experience of serious accidents/diseases	34 (18.7)	9 (26.5)	25 (73.5)	22 (64.7)	12 (35.3)	0.002** a)	12 (35.3)	0.005** b)	
Experience of caregiving	23 (12.6)	9 (39.1)	14 (60.9)	17 (73.9)	6 (26.1)	0.241 a)	6 (26.1)	0.250 b)	
Experience of bereavement	139 (76.4)	64 (46.0)	75 (54.0)	110 (79.1)	29 (20.9)	0.029* a)	29 (20.9)	0.040* b)	
Presence of agencies/persons to consult about medical treatment and care	46 (25.3)	12 (26.1)	34 (73.9)	37 (80.4)	9 (19.6)	<0.001 *** a)	9 (19.6)	0.660 b)	
Experience of learning about ACP	2 (1.1)	1 (50.0)	1 (50.0)	1 (50.0)	1 (50.0)	1.000 b)	1 (50.0)	0.322 b)	
Willingness to learn about ACP	36 (19.8)	11 (30.6)	25 (69.4)	24 (66.7)	12 (33.3)	0.007** a)	12 (33.3)	0.012** b)	
ATDS-A: fear of death	27.07 ± 6.76	27.68 ± 6.24	26.44 ± 7.23	27.39 ± 6.72	25.59 ± 6.84	0.217 c)	25.59 ± 6.84	0.174 c)	
: existence of afterlife	11.34 ± 2.77	11.11 ± 2.71	11.57 ± 2.82	11.35 ± 2.82	11.28 ± 2.56	0.415 d)	11.28 ± 2.56	0.725 d)	
: intention to live out own life	16.43 ± 2.65	16.54 ± 2.60	16.32 ± 2.71	16.48 ± 2.64	16.22 ± 2.70	0.579 d)	16.22 ± 2.70	0.544 d)	
: meaning of death for life	16.46 ± 3.02	15.90 ± 2.96	17.03 ± 2.98	16.39 ± 3.00	16.78 ± 3.12	0.007* d)	16.78 ± 3.12	0.351 d)	
: approval of death with dignity	12.31 ± 1.85	11.95 ± 1.74	12.69 ± 1.89	12.22 ± 1.87	12.75 ± 1.70	0.004* d)	12.75 ± 1.70	0.139 d)	
Family APGAR total	11.76 ± 2.90	11.38 ± 2.98	12.14 ± 2.77	11.46 ± 2.87	13.16 ± 2.63	0.062 d)	13.16 ± 2.63	0.001*** d)	
MSPSS total	63.29 ± 12.84	61.63 ± 12.82	64.99 ± 12.71	62.05 ± 12.77	69.13 ± 11.70	0.076 d)	69.13 ± 11.70	0.004** d)	
Practice of ACP									
Considered ACP	90 (49.5)		32 (100.0)	58 (64.4)	32 (35.6)		32 (35.6)	< 0.001*** a)	
Discussed ACP	32 (17.6)	0 (0.0)				< 0.001*** a)			

a), chi-square test; b), Fisher's exact test; c), t-test; d), Mann-Whitney U test. * $p < 0.05$, ** $p < 0.01$, and *** $p < 0.001$. ATDS-A, attitude toward death scale for the middle-aged and elderly; Family APGAR, adaptability, partnership, growth, affection, and resolve; MSPSS, multidimensional scale of perceived social support.

Table 4. Factors associated with the practice of advance care planning (ACP) (n = 182)

		Considered ACP			Discussed ACP		
		OR	95%CI	<i>p</i>	OR	95%CI	<i>p</i>
Age	Aged (per year)	1.00	0.96-1.03	0.832	1.01	0.97-1.06	0.549
Gender	Female vs. Male (ref)	1.71	0.89-3.31	0.109	2.98	1.26-7.04	0.013*
Experience of serious accidents/diseases	Yes vs. No (ref)	3.88	1.59-9.48	0.003**	3.91	1.52-10.10	0.005**
Experience of bereavement	Yes vs. No (ref)	1.91	0.84-4.31	0.120	3.47	0.91-13.19	0.068
Presence of agencies/persons to consult about medical treatment and care	Yes vs. No (ref)	3.73	1.70-8.17	0.001**	0.85	0.33-2.20	0.741
Willingness to learn about ACP	Yes vs. No (ref)	2.98	1.27-6.96	0.012**	3.56	1.40-9.02	0.008**
Omnibus test of fit		$\chi^2 = 39.399$ <i>df</i> = 6 <i>p</i> < 0.001			$\chi^2 = 26.386$ <i>df</i> = 6 <i>p</i> < 0.001		
Hosmer-Lemeshow goodness-of-fit-test		$\chi^2 = 10.967$ <i>df</i> = 8 <i>p</i> = 0.204			$\chi^2 = 6.928$ <i>df</i> = 8 <i>p</i> = 0.544		
-2 Logarithm likelihood		215.885			142.875		
Percentage of correct classifications		67.6%			82.4%		

* *p* < .05, ** *p* < .01, and *** *p* < .001. OR, odds ratio; CI, confidence interval.

on comparing the groups with ACP practices. There was a significant association between considered ACP and the following variables: experience of serious accident/illness ($\chi^2(1) = 9.698$, *p* = 0.002), experience of bereavement ($\chi^2(1) = 4.779$, *p* = 0.029), ATDS-A: meaning of death for life (*U* = 5085.00, *p* = 0.007), ATDS-A: approval of death with dignity (*U* = 5161.500, *p* = 0.004), presence of agencies/persons to consult about medical treatment and care ($\chi^2(1) = 14.737$, *p* < 0.001), and willingness to learning about ACP ($\chi^2(1) = 7.177$, *p* = 0.007). Discussed ACP was associated with female ($\chi^2(1) = 5.090$, *p* = 0.024), experience of serious accident/illness (F test: *p* = 0.005), experience of bereavement (F test: *p* = 0.040), willingness to learn about ACP (F test: *p* = 0.012), higher total Family APGAR (*U* = 3269.00, *p* = 0.001), and higher total MSPSS (*U* = 3172.500, *p* = 0.004).

Logistic regression

Table 4 shows the results of the logistic regression analysis, which revealed that considered ACP was significantly associated with the experience of serious accidents/diseases (odds ratio [OR], 3.88; 95% confidence interval [CI], 1.59-9.48), presence of agencies/persons to consult about medical treatment and care (OR, 3.73; 95% CI, 1.70-8.17), and willingness to learn about ACP (OR, 2.98; 95% CI, 1.27-6.96). Moreover, discussed ACP was significantly associated with the following factors: female (OR, 2.98; 95% CI, 1.26-7.04), experience of serious accidents/diseases (OR, 3.91; 95% CI, 1.52-10.10), and willingness to learn about ACP (OR, 3.56; 95% CI,

1.40-9.02). Age was not associated with either considered or discussed ACP. For the logistic regression model, the omnibus test of fit demonstrated the significance of the model (Considered ACP; $\chi^2(6) = 39.399$, *p* < 0.001; Discussed ACP; $\chi^2(6) = 26.386$, *p* < 0.001). The Hosmer-Lemeshow test was not significant ($\chi^2(8) = 10.967$, *p* = 0.204, $\chi^2(8) = 6.928$, *p* = 0.544, respectively), indicating that the data fit the model well. The overall success rate of prediction was 67.6% (considered ACP) and 82.4% (discussed ACP).

Discussion

This study explored the attitudes regarding ACP and related factors with its practice among the working generation in Japan.

Trends in the working generation's awareness of ACP

The practice of ACP was considered by 49.5%, discussed by 17.6%, and documented by 2.7% of the participants. This result shows that the rate of ACP practice was lower than in previous studies targeting adults and the elderly in Japan.^{9,25} As shown in **Table 2**, in ACP practice, it is possible that the rate of not considering ACP was low due to a lack of interest in ACP, while that of not discussing ACP may be because of a lack of understanding of the necessity and purpose of ACP due to limited opportunities or contexts for discussion. The reason for this result is the barrier inherent in ACP, similar to Schickedanz et al. who identified contemplation as a

barrier to ACP.¹³ Since the working generation is generally healthy, they frequent medical institutions less. Naturally, inevitable death and old age are perceived to be far off in the future, and thinking about these matters or sickness were considered difficult themes to grasp. Although there are few surveys such as the present study on attitudes toward ACP among the working-age population, surveys of the general adult population overseas have shown that the rate of ACP/advance directive (AD) is higher than that in Japan.^{26,27} This may be because of the influence of the legal establishment of ACP/AD. In Japan, the definition of ACP² has recently reached a domestic consensus, and it is expected that ACP will be promoted among healthy people in the future.

Factors related to ACP practice status

The multivariate analysis found the following three factors associated with the practice of considered ACP: experience of serious accident/diseases, presence of agencies/persons to consult about medical treatment and care, and willingness to learn about ACP. Discussed ACP was associated with the female, experience of serious accidents/diseases, and willingness to learn about ACP. In previous research, caregiving experience and bereavement were major triggers for participation in ACP discussions.²¹ However, for the working generation in this study, it was the experience of serious illness that provided the opportunity to think and discuss. This finding is similar to previous research with mainly older adults^{10,28} and young adults.⁶ Direct individual experience of serious illness might have a significant impact on the working generation's ACP practice, as it triggers them to consider life and death as their own issues. Further, those who discussed ACP were mostly female, which is consistent with some previous studies^{11,29} Hanari et al. also showed that men were less likely to have discussions about the end-of-life than female.⁸ In encouraging ACP discussions, gender differences need to be recognized. Furthermore, since considering ACP was associated with the availability of community resources, enhancing community consultation services may be beneficial. Simultaneously, since those who considered and discussed ACP expressed a high desire for training/seminars related to ACP, it can be assumed that these individuals had a latent need to learn about ACP. The small sample size of

this study prevented the clarification of factors related to "Documented ACP." Since a previous national survey has also reported a low percentage of documented ACP in Japan (8.1%),⁹ encouraging ACP documentation remains a challenge in Japan. Concurrently, it has been pointed out that an essential element of ACP is the process of discussing with others,^{1,30} thus warranting the cultivation of an approach that emphasizes ACP dialogues.

Therefore, to disseminate awareness of ACP among the working generation, it is necessary to present the specific knowledge and benefits of ACP, as well as encourage people to think about it as their own issue. Simultaneously, it is necessary to create/set such topics and triggers in their workplaces on a daily basis, as part of health management opportunities such as health checkups and preparations for retirement.

There are several limitations to this study. First, this study had a relatively small sample size and a low response rate from potential participants, and the data were collected for convenience from a single city; thus, the results' generalizability is limited. Future research could consider a nationwide study among the working generation. Second, while we practiced caution while assessing ACP in our study, there is a dearth of validated scales. Given that ACP can be complex, further refinements in its assessment should be considered, including related process and action outcomes.

Conclusion

The present study clarified the current status of ACP among the working generation and the factors that influence ACP practice, providing a valuable basic guide for future interventions. To promote ACP among this group, it may be useful to provide them with ACP-related knowledge, opportunities for deliberation and discussion, and information about sources for consultation.

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AK undertook data collection; NH and MMK advised the analysis; TI performed the statistical analysis and drafted the manuscript; TI, AK, NH, MMK, CY, and HN critically reviewed the manuscript; HN supervised the whole study process. All authors read and approved the final manuscript.

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