# Factors associated with patient preferences for communication of bad news

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#### ABSTRACT

Objective: Communication based on patient preferences can alleviate their psychological distress and is an important part of patient-centered care for physicians who have the task of conveying bad news to cancer patients. The present study aimed to explore the demographic, medical, and psychological factors associated with patient preferences with regard to communication of bad news.

*Methods:* Outpatients with a variety of cancers were consecutively invited to participate in our study after their follow-up medical visit. A questionnaire assessed their preferences regarding the communication of bad news, covering four factors—(1) how bad news is delivered, (2) reassurance and emotional support, (3) additional information, and (4) setting—as well as on demographic, medical, and psychosocial factors.

Results: A total of 529 outpatients with a variety of cancers completed the questionnaire. Multiple regression analyses indicated that patients who were younger, female, had greater faith in their physician, and were more highly educated placed more importance on "how bad news is delivered" than patients who were older, male, had less faith in their physician, and a lower level of education. Female patients and patients without an occupation placed more importance on "reassurance and emotional support." Younger, female, and more highly educated patients placed more importance on "additional information." Younger, female, and more highly educated patients, along with patients who weren't undergoing active treatment placed more importance on "setting."

Significance of Results: Patient preferences with regard to communication of bad news are associated with factors related to patient background. Physicians should consider these characteristics when delivering bad news and use an appropriate communication style tailored to each patient.

**KEYWORDS:** Communication, Patient preferences, Bad news, Patient-oncologist relationship

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#### INTRODUCTION

Delivering bad news is a complex and difficult task for physicians. It is well known that physicians with an effective communication style engender high-quality cancer care (Fallowfield et al., 1996;

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Takayama et al., 2001; Schofield et al., 2003; Morita et al., 2004; Fontanesi et al., 2007). Communication using an approach preferred by patients has been linked to lower psychological distress and higher patient satisfaction levels (Schofield et al., 2003). The patient-centered approach requires that physicians understand patient preferences regarding communication. However, most physicians do not have a standard strategy for delivering bad news to patients, even though they are frequently required to do so (Baile et al., 2000).

In order to resolve this problem, it is important to recognize patients' perceptions and preferences regarding the manner in which physicians deliver bad news. Despite the growing interest in patients' perspectives, general information on patients' preferred mode of communication is lacking. One reason for this is that patient preferences regarding communication of bad news vary widely (Butow et al., 1996; 1997; Parker et al., 2001; Fujimori & Uchitomi, 2009). Knowledge of the demographic, medical, and psychosocial variables predictive of patient preferences has been shown to be useful for physicians who hope to tailor their communication style to individual patients. According to a previous review regarding the communication preferences of cancer patients, little information is available on the predictive variables associated with patient preferences with respect to communication of bad news (Fujimori & Uchitomi, 2009). Those findings indicated that 8 of 24 studies (mainly in the United States and United Kingdom) that met the eligibility criteria considered both patient preferences and their predictive variables, and these preferences varied according to demographic and psychosocial variables, but not according to disease-related variables. For example, younger, female, and more highly educated patients consistently wanted to receive as much detailed information as possible. Younger, female, and more educated patients and patients with a higher level of distress also valued receiving emotional support. There are cross-cultural factors related to the discussion of life expectancy and family involvement (Fujimori & Uchitomi, 2009). Thus, further research is required in settings other than the United States and United Kingdom, such as Japan.

Accumulation of further study results on the preferences of cancer patients may help to refine the current guidelines and establish patient-preference-based recommendations for dealing with this challenging task. The purpose of the present study was to explore the impact of demographic, medical, and psychosocial characteristics on patient preferences with regard to communication of bad news.

### MATERIALS AND METHODS

### **Patients**

All of the subjects in our study were cancer outpatients who were attending follow-up appointments at the National Cancer Center (NCC) Hospital East in Chiba, Japan, which treats mainly breast, digestive, head and neck, and lung cancer. To be eligible for enrollment, patients were required to be: (1) deemed by their physician and medical chart to have received bad news regarding cancer three or more months earlier (including news about diagnosis, recurrence, disease progression, or ineffectiveness of anticancer treatment); (2) 20 years of age or older; (3) judged by their physician to be capable of completing the survey; and (4) capable of understanding spoken and written Japanese.

# **Procedure**

The institutional review board and ethics committee of the NCC approved this study, and each patient provided written informed consent. All eligible outpatients were invited to participate after their medical follow-up visit. Patients then completed a series of questionnaires and mailed them back to the research team. If the questionnaires contained any blanks or were missing information, a single attempt was made to obtain such information by telephone or post.

## Measurements

Patient Preferences for Communication Style Regarding Physicians Delivering Bad News about Cancer

This questionnaire consisted of 70 items, rated on a 5-point Likert-type scale, with scores ranging from 1 (strongly do not prefer) to 5 (strongly prefer) with respect to the communication styles of physicians delivering bad news about cancer. Items were grouped into four components based on the results of an explanatory factor analysis using the maximum-likelihood method with promax rotation. The four factors were adopted on the basis of a scree plot (the eigenvalues of factors 3, 4, 5, 6, and 7 were 4.68, 2.67, 1.98, 1.70, and 1.45, respectively) and their interpretability.

**Factor 1**: how the bad news was delivered (21 items, variance explained = 9.81, Cronbach's  $\alpha$  = 0.93), where the variables included delivering bad news clearly, in a manner that facilitated each patient's full understanding, and the use of actual images and test data.

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**Factor 2**: *emotional support* (17 items, variance explained = 7.77, Cronbach's  $\alpha = 0.88$ ), where the variables included considering patients' and family members' feelings, breaking bad news in an empathic manner, and talking in a way that inspired hope.

**Factor 3**: additional information (15 items, variance explained = 5.17, Cronbach's  $\alpha = 0.82$ ), where the variables included offering patients a chance for a cure, discussing the patient's life and work in the future, and receiving all available information—both good and bad.

**Factor 4**: *setting* (17 items, variance explained = 10.23, Cronbach's  $\alpha = 0.77$ ), including face-to-face consultation, providing sufficient time for consultations, and having other caregivers in attendance.

The correlation coefficients between each factor were weak to moderate ( $\rho = 0.20 - 0.50$ ) (Fujimori et al., 2007).

# Psychological Distress

The Japanese version of the Hospital Anxiety and Depression Scale (HADS) was utilized to measure patient distress (Kugaya et al., 1998). This is a self-administered and standardized instrument for evaluating patient distress. It consists of 14 items, where each item is rated on a 4-point (0 to 3) Likert-type scale (Zigmond & Snaith, 1983).

# Patient Satisfaction with Consultation

Patient satisfaction with their own experience of receiving bad news was assessed using an 11-point (0 to 10) numeric rating scale, in line with previous studies using single-item measures (e.g., Aomatsu et al., 2014).

# Patient Trust in Physician

Patient trust in their physician was assessed using an 11-point (0 to 10) numeric rating scale, also in line with previous studies that employed single-item measures (e.g., Arora & Gustafson, 2008).

# Demographic and Medical Characteristics

Another part of the questionnaire inquired about demographic data, including age, sex, employment status, education level, marital status, and household size. Such medical data as cancer site, recurrence or metastasis, performance status (assessed using the Eastern Cooperative Oncology Group criteria: 0–4), past treatment received, current anticancer treatment, and what bad news

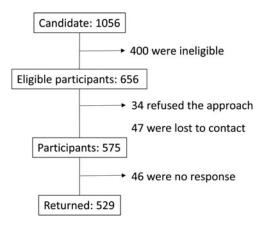


Fig. 1. Study flowchart.

was received were obtained from patient medical records

# Statistical Analysis

To statistically describe the characteristics of participants and the distribution of patient preferences, we used simple frequency, mean, standard deviation (SD), median, and range, according to the type of the variable and each component of patient preference. Multiple regression analyses were then conducted to explore the variables associated with the components of patient preferences with respect to communication style. A stepwise selection method was employed to reduce nonsignificant variables from the models, which included the demographic, medical, and psychosocial variables as independent variables. These independent variables were selected from previous studies (Cassileth et al., 1980; Butow et al., 1996; 1997; Parker et al., 2001).

A value of p < 0.05 was adopted as the significance level for all statistical analyses, and all values of p reported were two-tailed. All statistical procedures were conducted using SPSS (v. 21.0) software for Windows.

### RESULTS

## **Patient Characteristics**

Some 1056 outpatients were screened for inclusion. Of the 656 patients who were eligible, 34 refused our approach and 47 could not be contacted. Of the remaining 575 patients who were approached, 529 (93.5%) returned the questionnaire (see Figure 1). Overall, 80.6% (529/656) of eligible patients participated in our study. The demographic and medical characteristics of participants are given in Table 1. Comparing respondents with nonrespondents revealed no significant differences.

**Table 1.** Demographic characteristics of subjects

	n	%
Age (years)		
Mean	62.26	
Median	63	
SD	10.817	
Range	26 - 91	
Sex		
Male	274	51.8
Female	255	48.2
Employment status		
Employed	190	35.9
Unemployed	339	64.1
Marital status		
Married	452	85.4
Unmarried	77	14.6
Household size		
Living alone	19	3.6
Living with someone	510	96.4
Educational status		
12 or less years	373	18.6
13 or more years	156	70.5
Cancer site		
Digestive	185	29.5
Breast	125	23.5
Head and neck	112	21.2
Lung	107	20.2
Stage		
1	135	25.5
2	94	17.8
3	96	18.1
4 or recurrent	201	38.0
Performance status	4.50	000
0	452	86.3
1, 2, 3	72	13.7
Current anticancer treatment	100	25.4
Presence	133	25.1
Absence	396	74.9
Faith in physicians	0.50	
Mean	6.58	
Median	7	
SD	2.61	
Range	0 - 10	
Satisfaction with receiving bad news	7.70	
Mean	7.78	
$egin{array}{c}  ext{Median} \  ext{SD} \end{array}$	$8 \\ 2.47$	
	0-10	
Range HADS	0-10	
Mean	g 05	
Median	8.95 8	
Median $SD$	8 6.63	
·	6.63 0-35	
Range	0-55	

# **Preferences with Respect to Communication Styles**

Descriptive data for each component are shown in Table 2. The mean for each item in each component was 4.2, 3.9, 4.0, and 4.0, respectively.

# Variables Associated with the Components of Communication Style Preferences

Table 3 lists the variables associated with the components of patients' communication preferences regarding physicians delivering bad news about cancer. The analyses indicated that younger patients, female patients, patients with more faith in their physician, and patients with a higher level of education placed more importance on how bad news was delivered (factor 1). Female patients and unemployed patients preferred to be provided with reassurance and emotional support by their physicians (factor 2). Younger patients, female patients, and patients with a higher level of education preferred to discuss additional information with their physicians (factor 3). Younger patients, female patients, patients in active treatment, and those with a higher level of education placed more importance on setting (factor 4).

# **DISCUSSION**

Our study clarified the factors associated with the physician communication styles preferred by cancer patients. Multiple regression analyses showed that patients' demographic characteristics (age, sex, and education status) might predict communication style preferences, which is consistent with previous research (Butow et al., 1996; 1997; Parker et al., 2001). Medical characteristics (type of cancer, cancer stage, and performance status) and psychological distress were not significantly associated with such preferences.

In our study, younger patients and patients with more faith in their physicians rated how the bad news was delivered as being important for them. Previous findings indicated that the behavior of oncologists (e.g., listening and caring, providing information, answering questions with honesty), which constitutes "interpersonal competence," is an important determinant of patient trust (Hillen et al., 2014). Trust has also been shown to facilitate communication, improve treatment adherence, and reduce fear and anxiety (Hillen et al., 2011). Generally speaking, patients appreciate openness from their oncologists.

Female patients placed more importance on having the physician provide emotional support when being told bad news. This result may be due to the fact that women generally show their emotions more than men and thus might require more emotional support in order to remain positive. Balancing hope and honesty is thus an important skill for physicians to have (Clayton et al., 2008). Our results also suggest that unemployed patients have difficulty

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Table 2. Number of items,	, range, mean, r	median, stan	dard deviation,	minimum,	and maximum	ı values of each
factor regarding patient p	references					

	Items	Range	Mean	Median	SD	Min	Max
Factor 1: How to deliver bad news	21	21-105	88.20	87	8.63	58	105
Factor 2: Emotional support	17	17 - 85	65.59	65	7.74	34	85
Factor 3: Additional information	15	15 - 75	59.83	59	6.65	31	75
Factor 4: Setting	17	17 - 85	68.22	63	7.31	33	79

obtaining emotional support from others outside of their family as they no longer have work colleagues.

Younger patients, female patients, and patients with a higher level of formal education were shown to want more information from their physicians. Many Japanese patients ask physicians very few questions during consultations, but they may actually feel the need for a great deal of information (Shirai et al., 2012). A question prompt sheet containing a list of questions designed to encourage patient inquiries during medical consultations might be a useful tool for such patients (Butow et al., 1997; Shirai et al., 2012). Some studies have shown that using such a question prompt sheet is associated with an increase in the number of questions that patients ask (Brown et al., 1999; 2001; Butow et al., 2004).

In contrast to the findings of a previous study indicating that patients preferred to participate actively in discussions and decision making at an earlier stage of their disease but later adopted a more passive attitude toward medical information (Eheman et al., 2009), our patient preference results did not differ by stage of disease or whether the cancer had recurred. This may be partly due to the fact that patients who have consultations at large cancer centers (like the one in which our survey was conducted) may be seeking more information and may have different expectations with respect to their treatment, regardless of the characteristics of their disease (Parker et al., 2001).

Younger patients, female patients, and patients with a higher level of formal education placed more importance on setting, including face-to-face consultations, sufficient consultation time, and attendance of other caregivers when discussing bad news. This is consistent with previous studies undertaken in Western countries and Japan (Parker et al., 2001; Fujimori et al., 2007). Patients who were not receiving active treatment also placed more importance on setting. This result might suggest that physical situational factors influence patients' needs for information and involvement. Previous findings indicated that patients attending routine follow-up were more likely to prefer better information and more involvement in the decision-making process after consultation than those

whose status had worsened (Butow et al., 1996). Our results might support previous studies (Butow et al., 1996; Umezawa et al., 2015) suggesting that seriously ill people may prefer a degree of paternalism in their care. An active role in the decision-making process may require expending more physical and mental energy than such patients can muster. However, we did not attempt to address this issue formally because of the cross-sectional nature of our study.

Such characteristics as older age, being male, low educational attainment, and more severe disease are predictive of patients adopting a passive role in their communication with physicians. In a Japanese oncology setting, elderly patients (those more than 70 years of age) were found to consider "omakase" (which involves being passive and leaving decisions to a medical expert) important and preferred a paternalistic decision-making style (Akechi et al., 2012). These general differences in terms of communication preferences might stem from the group-directed or hierarchical decision-making practices at many Japanese medical institutions, which conflict with the possibility of catering to individual preferences.

Overall, patient preferences did not differ by cancer type or stage of disease. This may suggest that patients who come to large cancer centers may be seeking more information and may have higher expectations of their physicians, regardless of disease characteristics (Parker et al., 2001).

However, all the independent variables in our study had small standardized partial regression coefficients in each regression model, and all the multiple regression models showed a low proportion of variance. In our previous study, we showed large variations among patients in terms of their preferences about discussing a prognosis, receiving bad news before findings have been confirmed, delivering bad news step by step, receiving bad news in a matter-of-fact manner, and physicians using a decisive tone of voice (Fujimori et al., 2005). Communication preferences that vary among individuals are difficult to identify based solely on patients' medical and psychosocial data. Thus, oncologists should attempt to understand each patient's preferences and tailor their communication styles to meet patients' individual needs.

 Table 3. Multiple regression analysis of demographic, psychological, and medical variables on patient preference subscales

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	В	β	t	d	θ	$CI_{95\%}$	R	$R^2$	${\rm Adjusted}\ R^2$	F	d
Factor 1: How to deliver bad news							0.25	90.0	90.0	8.87	< 0.01
Age	-0.13	-0.16	-3.41	< 0.01	-0.15	-0.20, -0.05					
Sex (male/female)	1.85	0.11	2.39	0.02	0.10	0.33, 3.37					
Faith in their physician	0.36	0.11	2.53	0.01	0.11	0.08,0.65					
Education level ( $\langle 12 \text{ years} \rangle \geq 13 \text{ years}$ )	2.34	0.12	2.86	< 0.01	0.12	0.73, 3.95					
Factor 2: Reassurance and emotional support							0.25	90.0	90.0	16.95	< 0.01
Sex (male/female)	2.82	0.18	4.26	< 0.01	0.18	1.52, 4.13					
Employment status (unemployed/employed)	-2.29	-0.14	-3.32	< 0.01	-0.14	-3.64, -0.93					
Factor 3: Additional information							0.26	0.07	90.0	12.11	< 0.01
Age	-0.09	-0.14	-3.17	0.00	-0.14	-0.14, -0.03					
Sex (male/female)	1.17	0.09	1.97	0.05	0.0	0.002, 2.34					
Education level ( $\langle 12 \text{ years} \rangle \geq 13 \text{ years}$ )	2.44	0.17	3.88	< 0.01	0.17	1.21, 3.68					
Factor 4: Setting							0.41	0.17	0.16	17.03	< 0.01
Age	-0.19	-0.28	-5.79	< 0.01	-0.25	-0.25, -0.13					
Sex (male/female)	3.13	0.21	4.80	< 0.01	0.21	1.85, 4.41					

# LIMITATIONS OF THE STUDY

Three limitations of the present study should be noted. First, we conducted our research at a single teaching cancer center, and so our results might not be representative of all cancer centers. Nonetheless, the study consecutively recruited and included patients with a variety of cancers, with different stages of disease, from varying age groups, and of both sexes, with a range of different psychosocial characteristics. The second limitation is that our survey examined the subjects at only one point in time, and so we cannot speculate on the stability of the measurements employed in the study. However, there was no significant difference between patients with and without tumor recurrence or metastases. The third limitation is that measurements of satisfaction with their consultations and trust in their physician were performed for only a single item. However, such measurements were employed in previous studies (Aomatsu et al., 2014; Arora & Gustafson, 2008).

Future research is required in order to predict patient preferences with respect to physicians' communication styles. Previous studies have demonstrated the effectiveness of communication skills training for oncologists in terms of increasing their use of communication behaviors preferred by patients, enhancing their confidence in communicating with patients (Moore et al., 2013), and promoting their ability to engender patients' trust (Fujimori et al., 2014). Future research should thus be conducted to evaluate the possibility of increasing trust by providing the results of the present study to oncologists.

# **CONCLUSIONS**

Our study has clarified the factors associated with the communication styles preferred by cancer patients. Overall, our results suggest that, when physicians are talking with patients about their cancer, it may be more important for them to consider patients' demographic characteristics—especially their age, sex, and educational background—rather than the specifics of their cancer and its background.

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